
The Influence of Organisational Factors on Employee Participation in an Exercise Initiative

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By Anna Little

Department of Management, Marketing, and Entrepreneurship

University of Canterbury

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Abstract

The aim of this research was to investigate how employee perceptions of individual and organisational factors influence their participation in workplace exercise initiatives. A thematic literature review informed the direction of this research and identified the ongoing challenge of employee participation in workplace exercise initiatives. This study utilised the job demands-resources model as a theoretical framework, as to examine how different organisational factors may act as enablers or barriers to employee participation in a workplace exercise initiative. Additionally, taken into consideration were individual level barriers to participation and a moderating effect of intrinsic motivation and perceived employer intentions. This study followed a mixed-methods approach to research, which consisted of an online survey (N = 98), followed by semi-structured interviews.

This study found leadership support for wellbeing to have a significant influence on employee frequency of participation in an exercise initiative. This finding suggests that the more that leadership supports, promotes and plans for improving wellbeing, the more often employees will participate in exercise initiatives. Moreover, employee perceptions of employer intentions moderated the relationship between leadership support for wellbeing and the likelihood of participation in an exercise initiative. The level of perceived employer intentions indicated the degree to which an employee perceives the employer's intentions of the exercise initiative to be genuine and caring towards employees. Additionally, although it was not directly hypothesised, a unique finding of this study was the relationship between perceived employer intentions of the exercise initiative and employee participation. Lastly, an unexpected finding of this study was the negative association temporal flexibility has with the likelihood of participation in an exercise initiative.

This study revealed a unique contributing factor to employee participation in exercise initiatives and consequently, this research not only contributes to existing literature but also provides a foundation for future research to further investigate perceived employer intentions in relation to employee participation in exercise initiatives. Furthermore, this research provided valuable insight into factors influencing employee participation, which is practically useful organisations looking to improve the way in which they implement exercise initiatives

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Chapter One: Introduction

1.1. Research Background

In recent years, there has been an increasing focus on providing wellness programs, such as exercise initiatives, as a means to enhance the motivation and productive capacity of an organisation's employees (Danna & Griffin, 1999). Investment in such initiatives has the potential to improve employee engagement and commitment, thus, employers may implement them as a part of their overall human resource management (HRM) strategy.

Historically, organisations have tended to focus on investing specifically in the material aspects of the organisation, and less so in human capital (Luthans, Luthans & Luthans, 2004). Within the field of HRM, this is often referred to as a *hard* or *instrumental approach* to HRM, implying that individual employees are simply costs to be minimised, rather than important assets worthy of significant investment (Gill, 1999; Truss, Gratton, Hope-Hailey, McGovern & Stiles, 1997). The instrumental approach to HRM is centred on quantitative and rational aspects of human resources and emphasises performance improvement as a source of competitive advantage (Stone, 2017). Within this transactional view of HRM, organisational strategic decisions place very low priority on the human resources and generally, when looking to cut costs, firms look to their investments in people such as wages, training, headcounts and even the HRM department (Barney & Wright, 1998). However, in recent decades, employers have realised the increasing importance and value of human capital and have progressively become more focussed on treating employees as valuable assets and even as a source of competitive advantage (Gill, 1999; Luthans et al., 2004). Human capital refers to the resources that develop from knowledge, skills, abilities and other characteristics of individual employees (Ployhart, Nyberg, Reilly & Maltarich, 2014). This shift is often referred to as a *behavioural perspective* or *humanistic approach* to HRM, and implies that individual employees are a valuable resource and thus worthy of investment (Barney & Wright, 1998; Gill, 1999; Jackson, Schuler & Jiang 2014; Wright & McMahan, 2011).

The behavioural perspective or humanistic approach to HRM, assumes that employees will be more productive, engaged and exert discretionary effort for the organisation if they are fully committed to the aims and values of the organisation (Gill, 1999; Jackson et al., 2014).

Furthermore, the behavioural perspective emphasises that competitive advantage is achieved through creating resourceful employees by having better know-how, job commitment, job satisfaction, adaptability, motivation and more recently engagement (Barney & Wright, 1998; Jackson et al., 2014; Stone, 2017). Consequently, this approach to HRM places a strong emphasis on employee development, participation, collaboration and the establishment of mutual trust (Boxall, 2013; Stone, 2017). Organisations pursuing more humanistic approaches to HRM tend to incorporate high commitment HRM practices such as investing in sophisticated recruitment and selection processes, individual development, extensive training, performance appraisals and allowing employees to work independently and exercise a degree of flexibility and control over their work, all of which have been linked to improved job satisfaction and organisational commitment (Boon & Kalshoven, 2014; Truss et al., 1997). Thus, organisations adopting such an approach to HRM, may look to implementing an exercise initiative as a worthy investment in their employees. Exercise initiatives represent an opportunity to improve human capital resources through investing in the wellbeing of employees.

Exercise initiatives are not only implemented by employers as a means to invest in human capital in order to increase motivation and productive capacity, but also as a means to address poor employee health. Research indicates that poor employee health is becoming more problematic due to the increasing time that the average employee spends sedentary at work. Ongoing changes in the daily environments in which people live and work have resulted in people spending more time sedentary and less time being physically active (Buckley et al., 2015; Owen, Healy, Dunstan & Matthews, 2010). Owen et al., (2010) suggest that many adults spend up to 70 percent or more of their waking hours sedentary. A significant part of the problem stems from the typical office setting, where office-bound employees spend an extensive amount of time sitting at their desk (Thorp et al., 2012). There is collective evidence linking sustained sedentary behaviour with various health risks such as musculoskeletal disorders, obesity and cardiovascular diseases, to mention just a few (Conn, Hafdahl, Cooper, Brown & Lusk, 2009; Robroek, van Lenthe, van Empelen & Burdorf, 2009; Pedersen et al., 2013; Thorp et al., 2012). This is of concern not only to individual employees, but employers as well, as poor employee health can have a significant impact on both the productivity and profitability of an organisation (Danna & Griffin, 1999).

Poor employee health is costly to employers in terms of reduced productivity resulting from both absenteeism and presenteeism; the former referring to days absent from work, whereas presenteeism occurs when employees come to work but underperform because of stress, illness, health conditions, low motivation or energy levels (Berry, Mirabito & Baun, 2010; Boles, Pelletier, Lynch, 2004). Poor employee health is also associated with higher healthcare costs, elevated levels of job stress, and poorer job commitment and satisfaction (Berry et al., 2010; Biron, Burke, & Cooper, 2014; Miller, 2016; Parks & Steelman, 2008). Furthermore, the two most common reported sources of poorer performance in terms of presenteeism and absenteeism are musculoskeletal disorders and poor mental health (Atlantis et al., 2004; Hafner, Van Stolk, Saunders, Krapels & Baruch, 2015; Proper et al., 2003). Beyond just financial concerns, Bredahl, Særvoll, Kirkelund, Sjøgaard & Pedersen (2015), even go as far as to suggest employee wellbeing as an ethical obligation of employers, particularly with regards to the prevention of occupational health risks. Guest (2017) supports this view and argues that HRM policy needs to become more focussed on employee wellbeing for three important reasons. First and foremost as an ethical obligation. Second he argues that employers should focus on wellbeing in order to address the increasing external pressures at work and in society that threaten individual wellbeing. Lastly, because improved employee wellbeing is generally associated with improved performance and reduced costs.

One means by which employers proactively improve employee wellbeing, and reduce the impact of health problems associated with sedentary work, is through the introduction of employer-sponsored workplace exercise initiatives (McLellan et al., 2009; Russell, 2009). Regular exercise has been shown to mitigate occupational health risks, and indeed, improve employee wellbeing, attitudes and productivity (Conn et al., 2009; Miller, 2016; Proper et al., 2003). For employers, the principle is that happy and healthy employees will be more productive workers and that makes better business (Miller, 2016).

While workplace exercise initiatives have increased in popularity due to the many potential positive outcomes associated with their use, not all initiatives are successful in terms of achieving the desired outcomes. Research suggests that initiatives are often short lived with low rates of employee participation (Cooper & Patterson, 2008; Dalager, Justesen, Murray, Boyle & Sjøgaard, 2016; Haynes & Helms, 2001; Person, Colby, Bulova & Eubanks, 2010; Ryde, Gilson, Burton & Brown, 2013). One of the major challenges faced by employers is low

levels of employee participation in the exercise initiative (Person, Colby, Bulova & Eubanks, 2010). Henceforth, academic research has become more focussed on investigating why employees fail to participate in, or cease participation in, exercise initiatives. Existing academic research has started to explore some of the individual-level barriers faced by employees that may hinder their participation in workplace exercise initiatives (Bredahl et al., 2015; Edmunds, Hurst & Harvey, 2013; Pedersen et al., 2013; Person et al., 2010). Although it has been acknowledged that organisational factors are important in the success of exercise initiatives, existing research is yet to investigate how organisational factors may influence participation in an exercise initiative. Hence, there is a need for a study to investigate how collectively, different organisational factors may influence participation

1.2. Purpose of this study

This thesis aims to answer the following research question:

How do individual and organisational factors influence employee participation in a workplace exercise initiative?

Utilising the job demands-resources model (Bakker & Demerouti, 2007) as a theoretical framework, this study examines how different organisational factors may act as enablers or barriers to employee participation in a workplace exercise initiative. The organisational factors included in this study are leadership support for wellbeing, co-worker support, temporal flexibility and role overload. Additionally, individual level barriers to participation are also considered. Finally the moderating effect of perceived employer intentions and intrinsic motivation is investigated.

1.3. Structure of the thesis

This thesis consists of five chapters:

Chapter 1 has introduced the topic of exercise initiatives in the workplace and presented the background to the research problem and an overview of the research question.

Chapter 2 which follows presents a review of academic literature on workplace exercise initiatives and develops the hypotheses for this research. This chapter is concluded with overview of the research framework and a chapter summary.

Chapter 3 presents an overview of the study design and Phase 1 of the research. This chapter describes the method, participants, materials and procedures, followed by the Phase 1 research results.

Chapter 4 describes Phase 2 of this study. Phase 2 involved semi-structured interviews with a limited number of research participants. This chapter presents the research method, participants, and materials. This is followed by a presentation and simultaneous discussion of the results from Phase 2.

Chapter 5 presents the overall discussion of the findings from both Phase 1 and Phase 2 of the study. The thesis concludes with a discussion of the research limitations and future research recommendations.

Chapter Two: Literature review

2.1. Introduction

This chapter presents a review of the academic literature on exercise initiatives in the workplace. The chapter commences with an overview of exercise initiatives, taking into consideration the different ways in which they may be implemented and the potential outcomes workplace exercise initiatives may achieve for employees and employers. This is followed by a discussion of the challenges faced with initiative design and employee participation. Employee participation is where this study is primarily focused, accordingly, the remainder sections discuss the various factors that influence employee participation in workplace exercise initiatives. This is commenced by a comprehensive discussion of the influence of organisational factors. The Job Demands-Resources model provides an overarching theoretical framework for this discussion and furthermore, the development of the research hypotheses. This is followed by a discussion on individual motivation to exercise, as motivation is an important part of what influences an individual's willingness to participate in an exercise initiative. The final discussion is on the influence of perceived employer intentions on participation, which progresses to the final research hypothesis. The chapter concludes with the presentation of the research hypotheses and conceptual framework used in the study.

2.2. Exercise Initiatives

There is a multiplicity of approaches to physical activity and exercise initiatives in the workplace. As such, it is necessary to firstly differentiate between general physical activity initiatives and physical fitness/exercise initiatives. Physical activity involves any bodily movement of skeletal muscles that results in energy expenditure (Biron et al., 2014). In this respect, some workplace physical activity initiatives aim to merely increase physical activity levels through standing or walking. Such initiatives ultimately aim to reduce time spent being sedentary (Buckley et al., 2015), and are thus unlikely to result in large improvements in terms of fitness or cardiorespiratory health. Contrastingly, physical exercise is more specific as it must be of greater intensity. To be classified as a physical exercise initiative, the activity must involve over 60 percent of maximal oxygen uptake and entail fast breathing and a significant increase in heart rate (Biron et al., 2014). Workplace exercise initiatives thus involve a high

intensity of physical activity, and generally aim to improve the overall health and physical fitness of employees, in addition to reducing sedentary behaviour (Dalager et al., 2016).

Organisations may implement exercise initiatives in multiple ways. For example, an initiative may be implemented online or offline; provided onsite or offsite; during or outside of paid work hours; individual workout programs or group programs, and lastly the initiative may be targeted initiative or an untargeted initiative (Knox, Musson & Adams, 2017). A targeted initiative is designed based on employee needs and is often designed with the intentions of reaching higher-risk employees (Macniven et al., 2015; Paguntalan & Gregoski, 2016). Furthermore, some workplace exercise initiatives involve team activities or team sports (Brinkley, Freeman, McDermott & Munir, 2017a; Brinkley, McDermott & Munir, 2017b). To encourage participation, organisations may provide their employees with financial or other incentives, for example, payment of monetary prizes based on weight-loss or programme adherence (Cawley & Price, 2013; Crespin, Abraham & Rotham, 2016; Paguntalan & Gregoski, 2016; Robroek et al., 2009).

The type of initiative and the way in which it is implemented is a critical part of its success in an organisation. Exercise initiatives need to be designed to suit the needs of the employees and the work environment, and also, purposely to achieve the specific aims or outcomes of the initiative (Haynes & Helms, 2001). The outcomes of an initiative are dependent on how well the initiative is designed in relation to achieving the desired outcomes. For example, if the desired outcomes are to improve fitness, then the initiative should be designed specifically to improve fitness. These outcomes are described in greater detail in the section that follows.

2.3. Employee Outcomes

2.3.1. Physical Wellbeing

Exercise initiatives have many potential positive outcomes for employees, but principally, it is an opportunity for them to improve their health and fitness (Conn et al., 2009; Biron et al., 2014; Emerson, Merrill, Shedd, Bilder & Siddarth, 2017; Proper et al., 2003). High-intensity training has been shown to result in significant improvements in cardiorespiratory fitness and systolic blood pressure (Dalager et al., 2016). Improvement in cardiorespiratory fitness is associated with a decreased risk of cardiovascular and metabolic

diseases, while improvements in blood pressure are associated with a reduced risk of strokes and heart disease (Dalager et al., 2016). Workplace exercise initiatives have also been shown to have positive effects on musculoskeletal disorders (Proper et al., 2003). Some initiatives may be primarily implemented to prevent and help with musculoskeletal disorders associated with sedentary workers, such as lower back and neck pain and related workplace injuries (Proper et al., 2003; Rasotto et al., 2015; Sjögren et al., 2006). Studies have shown that workplace exercise initiatives incorporating strength training can improve neck and back pain, as well as muscle endurance and flexibility (Sjögren et al., 2006; Zavanela et al., 2012).

In addition to improvements in general health and fitness, some exercise initiatives have been shown to help with weight-loss. Obesity is an ever-increasing problem worldwide, and more saliently within New Zealand (Bilby, 2015; Wiggins, 2018). A recent study has reported that the frequency of obesity in New Zealand has increased to 30% of the population, making New Zealand the third most obese nation (Wilson & Abbott, 2018). Furthermore, the same study has projected that two million New Zealanders will be obese by 2038 (Wilson & Abbott, 2018). Exercise initiatives are often therefore specifically targeted at achieving weight loss among employees (Anderson et al., 2009). A systematic review investigating the effectiveness of workplace nutrition and physical activity initiatives for weight-loss established that, overall, studies show a modest reduction in weight, a pooled estimate of -2.8 pounds after 6 - 12 months based on nine randomised controlled trials (Anderson et al., 2009). The same systematic review reported a decrease in BMI of -0.5 based on six randomised controlled trials (Anderson et al., 2009). One limitation of these studies is that they used only weight-loss measures and thus do not distinguish between fat loss and muscle gain. This may lead to distorted conclusions as certain exercise initiatives will lead to muscle gain which reduces overall weight loss exercise that leads to muscle gain (Cawley & Price, 2013). Furthermore, when using measures of average weight loss, it is not possible to determine whether a few employees lost a big amount of weight or if many employees lost small amounts of weight. None the less research generally supports the view that workplace exercise initiatives are an effective means to support employees to lose weight.

2.3.2. Mental Wellbeing

In addition to the more obvious improvements in physical wellbeing, workplace exercise initiatives can also improve the mental wellbeing of employees (Atlantis, Chow, Kirby

& Singh, 2004; Coulson, McKenna & Field, 2008; de Zeeuw, Tak, Dusseldorp & Hendriksen, 2010; Emerson et al., 2017). For example, de Zeeuw et al. (2010) demonstrated that regular exercise is associated with a reduced incidence of depression in employees who have an inactive lifestyle and who have a predisposition towards depression (de Zeeuw et al., 2010). Physical exercise has been found to reduce levels of work-related stress (Conn et al., 2009; Emerson et al., 2017; Parks & Steelman, 2008). These studies demonstrate that stress levels are reduced through exercise initiatives positively influencing coping skills the enable employees to better regulate work behaviours and deal with minor irritations (Coulson et al., 2008). For example Atlantis et al. (2004) examined the effect of a 24-week aerobic and weight training exercise initiative on mental health and quality of life. Their study found significant improvements in quality of life (Physical Functioning [12.8%], Bodily Pain [-17.7%], General Health [9.9%], Vitality [44.5%], and Mental Health [15.9%], depression (-26%) and stress measures (-37%). Given this evidence, exercise initiatives are often implemented solely, or at least in part, with the intention of improving the mental wellbeing of employees (de Zeeuw et al., 2010).

2.3.2. Employee Attitudes

Exercise initiatives have the potential to have a positive effect on employee attitudes towards the organisation. Rudman and Steinhardt (1998), conducted a study that found that 85 percent of the participants in the wellness program showed more organisational commitment. Job satisfaction consists of the positive feelings that employees feel towards rewarding aspects of the job, moreover, the degree to which they are satisfied with the terms and conditions of their employment and aspects of their physical work environment (Currie, 2001; Fisher et al., 2004). Academic literature has suggested that a workplace exercise initiative fosters positive attitudes and make employees happier, and therefore, more satisfied with their job (Parks & Steelman, 2008). Furthermore, it is also suggested that having a wellness program shows employees that the organisation cares about their wellbeing, and therefore, improving employee job satisfaction. Studies have found positive associations between workplace exercise initiatives and job satisfaction (Parks & Steelman, 2008; Andersen et al., 2017). Nevertheless, exercise initiatives that improve individual employee wellbeing outcomes can lead to more positive employee attitudes and thus, more positive outcomes for the organisation.

Accordingly, the next section discusses how these improvements in employee wellbeing and attitudes can also lead to positive outcomes for the organisation.

2.4. Employer Outcomes

These aspects job commitment, satisfaction, and work-life balance all influence engagement, performance and employee retention (Baptiste, 2008). Employers who engage in a behavioural perspective to HRM, believe that improved job commitment can improve the overall performance of the organisation, and so, an exercise initiative may be a valuable initiative to these employers (Truss et al., 1997). Furthermore, a workplace exercise initiative does not merely benefit employees, as there are also many advantages to the organisations. The return of investment is commonly measured in terms of reduced healthcare costs but can also be measured by absenteeism, job stress, job satisfaction, job commitment and improved productivity (Berry et al., 2010; Biron et al., 2014; Parks & Steelman, 2008; Zavanela et al., 2012). As a result of these outcomes, a workplace exercise initiative can improve overall business performance (Pronk & Kottke, 2009). The employer outcomes to be discussed include business improved performance, employee recruitment and retention, reduced healthcare costs and absenteeism.

2.4.1. Improved Organisation Performance

Guest suggests that addressing employee wellbeing is essential when looking to utilise HRM to improve performance (2017). Investing in human capital has been cited as a key way of enhancing organisational resources to gain competitive advantage and thus, improve business performance (Barney, 1991; Guest, 2017). Human capital theory suggests that competitive advantage can be found through the investment in combinations of human resources (Ployhart et al., 2014). There has been increasing interest in ‘best practice’ HRM or otherwise referred to as ‘high-performance’ or ‘high-commitment’ work systems (Baptiste, 2008). Organisations with such an approach endeavour to create a committed, qualified and unified workforce based on high-trust (Gould-Williams, 1998). Employees who are committed to the organisation strongly believe and accept the organisation’s goals and values and are willing to put forth a great amount of effort on behalf of the organisation (Baptiste, 2008). Given that, exercise initiatives can positively influence employee attitudes such as

organisational commitment and job satisfaction, organisations may implement them as not only an ethical obligation but as a means to enhance human capital to improve performance.

2.4.2. Employee Recruitment and Retention

Improved job commitment and attitudes towards the employer because of an exercise initiative, have the potential help with the recruitment and retention of valuable employees. Some organisations have found significant reductions in their rate of turnover due to the introduction an exercise initiative (Berry et al., 2010). Furthermore, an effective exercise initiative is known to enhance the organisations reputation and attractiveness, and consequently, help with the recruitment and retention of employees (Parks & Steelman, 2008). Exercise initiatives are especially attractive to potential employees who have interests in a healthy lifestyle as they may place importance on employee benefits such as fitness programs when evaluating job positions at organisations (Haynes & Helms, 2001; Parks & Steelman, 2008). In fact, it was found that 47 percent of organisations implement wellness programs primarily for the retention and recruitment of employees (Parks & Steelman, 2008). Additionally, exercise initiatives can be beneficial for team building and have the ability to improve the culture of an organisation, which also benefits the attractiveness of the organisation (Berry et al., 2010; Parks & Steelman, 2008).

2.4.3. Healthcare costs

Rising healthcare costs from insurance policies and medical costs, especially in the United States, are a key concern faced by organisations (Baicker, Cutler & Song, 2010; Sears, Shi, Coberley & Pope, 2013). A key motive for implementing exercise initiatives is to reduce healthcare costs, based on the rationale that those who participate in regular exercise are healthier than non-exercisers and thus, reduce health insurance premiums and healthcare costs (Baicker et al., 2010). In the US, it is estimated that over 60 percent of Americans receive health insurance through an employment-based plan, hence there is a strong motivation for wellness programs in America to reduce medical and insurance premium costs (Baicker et al., 2010). A study in New Zealand found 58.7 percent of participants had no insurance provided for their employees (Southern Cross Health Society & BusinessNZ, 2017). Thus, this is less of an incentive for most New Zealand organisations, however, it may be a good incentive for the 41.3% of businesses that offer an insurance policy to employees. The organisation Johnsons & Johnson's estimated that their wellness programs saved them \$250 million on health care costs

between 2002 and 2008 and the return was \$2.71 for every dollar spent (Berry et al., 2010). These cost savings were calculated by multiplying the reduction in lost work days by average pay rates (USD\$1.5 million) and additionally, the insurance premiums, which had declined by 50 percent (Berry et al., 2010). Furthermore, Baicker et al. (2010) found that on average employee medical costs fall \$3.27 USD for every \$1 spent on employee wellness programs and absentee costs fall by \$2.73. Collectively, this research shows that exercise initiatives can be a worth investment for organisations looking to reduce costs.

2.4.4. Absenteeism and Presenteeism

Along with reduced healthcare costs, reduced absenteeism can also be measured in terms of cost savings. Absenteeism may lead to job delays, a job not being done at all or require a temporary replacement of an employee, all of which incur costs to the employer (Biron et al., 2014). Exercise initiatives may be implemented to improve employee health based on the logic that healthier employees are less likely to become unwell or unable to work due to poor health, and thus, reduce employee absenteeism (Boles et al., 2004). An earlier study by Kerr and Vos (1993) of 152 white-collar employees found that involvement in an exercise program leads to a significant reduction in absenteeism, whereas the control group demonstrated an increase in absenteeism.

Sears et al. (2013) define the organisation's loss of productivity not only as being away from work (absenteeism) but also presenteeism, which as previously mentioned, refers to performance on the job and more specifically when employees turn up to work but underperform because of stress, illness, health conditions, low motivation or energy levels (Berry et al., 2010). This leads to lower productivity at work in terms of meeting work expectations. Presenteeism is typically measured by the costs of reduced work output, the number of errors on the job or failure to meet company standards (Cancelliere, Cassidy, Ammendolia & Côte, 2011). A 2009 study of 50,000 workers at 10 organisations and found that lost productivity costs are 2.3 times higher than medical and pharmacy costs (Berry et al., 2010). In the US, the estimated cost from absence and performance loss due to physical health issues is \$225.8 billion USD per year, 71 percent of which consists of as a result of on-the-job productivity impairments due to poor wellness (Sears et al., 2013). Given these findings, it is logical that an employer may wish to improve the health of employees as to decrease the effects poor health has on the overall productivity of the organisation.

Exercise initiatives have been shown to have positive effects on presenteeism, as when individuals become healthier, they are less likely to be impaired on the job as a result poor health (Biron et al., 2014; Cancelliere et al., 2011). Productivity loss has been attributed to depression, work stress and musculoskeletal disorders (Ammendolia et al., 2016; Atlantis et al., 2004; Hafner et al., 2015; Proper et al., 2003). All of which, as previously discussed, can be positively influenced by participation in an exercise initiative. Moreover, physical exercise initiatives may also improve presenteeism due to improved mood and improved job motivation (Ammendolia et al., 2016; Biron et al., 2014; Cancelliere et al., 2011; Hafner et al., 2015).

An exercise initiative is unlikely to realise the intended individual and organisational outcomes of a workplace exercise if the initiative is implemented short-term or if participation is short-lived (Hunter, 2016). If organisations wish achieve any of the discussed outcomes, the main challenge they face is how to effectively implement an exercise initiative for the best long-term participation (Haynes & Helms, 2008). While the preceding section demonstrates that there are many potentially positive outcomes of workplace exercise initiatives, not all initiatives are successful. The section which follows will discuss the key challenges that employers may face when implementing exercise initiatives.

2.5. Exercise Initiative Challenges

2.5.1. Exercise Initiative Design

Exercise initiatives can fail to achieve the intended outcomes due to poor design of the initiative (Fonarow et al., 2015; Karanika-Murray & Biron, 2015). Research has found that employers often implement exercise initiatives with little regard for the best practice guidelines recommended by academic research (Zula, 2014). A lack of clear objectives has been associated with poorer outcomes and participation. The objective of most successful initiatives is to engage as many employees as possible in physical exercise on a continual basis to improve the overall health of workers in the long-term (Hunter, 2016). Many exercise initiatives are implemented as one-off programs and consequently, the exercise behaviours are short-lived for the program (Glasgow et al., 1993; Hunter, 2016; Lovato and Green, 1990). Ongoing programs are also more attractive to employees and more likely to produce enduring behavioural change (Hunter, Gordon, Lythgo, Bird & Benson, 2018). Thus, a major challenge to employers is designing an exercise initiative that is not only going to

initially obtain high levels of employee participation, but also maintain employee participation in the long-term.

If an exercise initiative is not a targeted, a limitation of their implementation is the selection process (Griffiths, 1996; McGillivray, 2002). The self-selecting nature of initiatives mean that the initiative is likely only reaching those already health conscious and not higher-risk employees that need it most (Griffiths, 1996; Macniven, Engelen, Kacen & Bauman, 2015; Marshall, 2004; McGillivray, 2002; Hunter, 2016). Therefore, some initiatives do not increase the number of participants achieving the recommended level of physical activity McGillivray (2002) argues that self-selecting initiatives can reinforce inequalities found in society, as certain individuals will be excluded because of their predisposed tendency to not participate in physical activity or due to fear and embarrassment. Furthermore, there are ethical concerns that arise regarding implementation of workplace exercise programs (McGillivray, 2002). For instance, there are issues regarding confidentiality and privacy, given that many initiatives involve health monitoring and measurements, thus, there are ethical concerns around the use of such personal information derived from these programs. Generally, a major challenge for organisations is how to design and target such initiatives for maximum reach as well as achieve the best long-term effectiveness (Haynes & Helms, 2001).

Exercise initiatives that have pre-program targeting to higher-risk participants have been shown to be more successful at improving the overall frequency of exercise participation among employees (Macniven et al., 2015; Paguntalan & Gregoski, 2016). The exercise initiative needs to be designed based on employee needs, and secondly, it needs to cater to different employees (Haynes & Helms, 2001). It is suggested to approach exercise initiatives the same way one approaches customer markets, through employee segments (Haynes & Helms, 2001). Furthermore, it has been observed that when smaller groups are targeted, there are higher recruitment rates (Ryde et al., 2013). As a result, a targeted initiative has the potential to reduce the aforementioned limitations of exercise initiatives.

Research suggests that financial incentives can be a useful tool for increasing participation, (Crespin et al., 2016; Robroek et al., 2009). Adding incentives, such as financial incentives, are thought to be effective motivators especially for higher risk employees (Paguntalan & Gregoski, 2016). For that reason, some organisations implement their exercise

initiatives including financial incentives. There are various ways to offer financial incentives, for example, the employee may be offered a payment based on how much weight is lost (Cawley & Price, 2013). Furthermore, another example is offering a gift certificate for the biggest loser, which enhances incentives with competition (Cawley & Price, 2013). A study on participation in an incentive-based initiative on self-reported exercise concluded that participants of incentivised initiatives upheld higher levels of exercise than non-participants (Crespin, Abraham & Rotham, 2016). The organisation offered \$20 monthly to encourage employees to use fitness facilities (Crespin et al., 2016). They found an increase of 0.59 days of intensive exercise per week and 0.43 days per week of strength building exercises in participants compared to non-participants (Crespin et al., 2016). Nevertheless, the difficult question that arises for employers is whether the investment of an incentive-based program will still attain a positive return of investment (Abraham, Feldman, Nyman & Barleen, 2011).

The design of the exercise initiative plays an important part in participation as perceived barriers experienced by employees may arise from aspects of the initiative itself and the facilities provided (Bredahl et al., 2015; Edmunds et al., 2013). Firstly, barriers may arise from the beginning with the enrolment process or technological issues (Bardus, Blake, Lloyd & Suggs, 2014). Additionally, respondents across different studies found the exercise program provided to be far too boring and this prevented their participation (Bredahl et al., 2015; Edmunds et al., 2013). The instructors or personal trainers involved were portrayed as a barrier for participants, depending on whether the employees liked their style or not (Bredahl et al., 2015). Furthermore, the placement of the exercise facilities should be considered carefully as the location is a reported barrier as study participants feel uncomfortable exercising and being sweaty in a public place or where they can be seen by other non-exercising colleagues (Bredahl et al., 2015). Evidently, the major challenge in the design of initiatives, is designing and implementing it most effectively to achieve employee participation. The following section discusses the challenge of employee participation, where this study is primarily focussed.

2.5.2. Employee Participation

A major challenge of physical fitness initiatives is both initial and sustained participation rates, especially amongst high-risk individuals (Bredahl et al., 2015). For many initiatives, only a small number employees participate, many of whom drop out (Griffiths, 1996). Most studies report employee participation rates of 50 percent or less, but often

significantly lower than 50 percent (Person et al., 2010; Robroek et al., 2009). One systematic review concluded that of those who do participate, after six months the dropout rate is 50 percent or more and long-term adherence after five years is 30 percent or lower (Lovato & Green, 1990). While this review is quite outdated, similar trends persist today. In one of the more recent studies, Dalager et al. (2016), 30 percent of invited employees chose not to participate. This study consisted of a one year long initiative, of which there was a 56 percent adherence to the program. This was considered as a successful participation rate compared to studies where participation drops to 35 percent or lower for initiatives over a 12-week period (Dalager et al., 2016). Nevertheless, participation still remains a challenge as the maintenance of at least half of the initial participation is still recognized to be difficult.

A major limitation of many earlier studies was the failure to mention or address participation levels (Glasgow et al., 1993; Kahn et al., 2002; Ryde et al., 2013). A systematic review found 76 percent of studies failed to report the rate of participation (Ryde et al., 2013). Moreover, the term participation is used loosely without providing a clear description of what is classified as full participation and what is not (Ryde et al., 2013). Since employee participation has been recognised as an issue, some of the more recent literature has started to focus on the employee motivations and barriers to participation (Bredahl et al., 2015). This thesis aims to understand how organisational factors as well as individual barriers may influence participation.

Miller (2016) indicated a gap in existing research to investigate whether the support of organisation's leadership, culture and human resource management strategies can collectively influence the participation in an exercise initiative. Furthermore, whether the absence of such support from the culture and leadership would challenge the effectiveness of an exercise initiative. Research has recommended that the support and participation of senior management could influence the employee perceptions of exercise initiatives and therefore, the likelihood of their participation (Cooper & Patterson, 2008). Furthermore, Dalager, Justesen and Sjøgaard (2017) suggested that future studies should seek to understand the link between the intentions of management and the actual implementation of an exercise initiative. This study aims to address these particular gaps in literature through examining the influence of perceptions of organisational aspects on participation in an exercise initiative. Therefore, the following sections discuss the different organisational and individual factors that influence participation.

2.7. Organisational Factors

The literature suggests that there are various aspects of an organisation may influence the effectiveness of an exercise initiative (Cooper & Patterson, 2008; Miller, 2016). Furthermore, for exercise initiative participation to be sustained long-term, they should be supported by the organisation's leadership, culture and HR practices (Miller, 2016; Lin & Lin, 2014; Zula, 2014). To ensure the long term success of an exercise initiative, it has been suggested that employee health should be aligned with the organisations strategies, goals and policies rather than be introduced solely as an extra benefit for employees (Miller 2016; Milner et al., 2013; Zula, 2014). Employees are likely to view initiatives like these with more cynicism and furthermore, these initiatives are potentially dropped when budgets become tight (Miller, 2016). Alternatively, if employee wellbeing is at the heart of the organisation, embedded into the culture, it is suggested the exercise initiatives are more likely to be successful (Miller, 2016). These suggestions indicate that there is a need for a study looking further than barriers on an individual level and additionally, investigating how organisational aspects may hinder or encourage participation in an exercise initiative.

Organisational culture plays a crucial role in the success of any workplace initiative (Dalager, Justesen & Sjøgaard, 2017). Organisational culture plays an important role in portraying the organisation's core values, and regulating the behaviours of employees. Embedding wellbeing and exercise into the culture of an organisation is advised to sustain exercise initiatives, and therefore, realise the many long-term benefits (Arena et al., 2013; Lin & Lin, 2014; Zula, 2014). Additionally, this would denote that the core values of the organisation and behaviours of employees are supportive of wellbeing. Miller (2016) questioned whether cultural cues have the potential to undermine the purposes of wellbeing initiatives when employees do not perceive the organisation culture to be supportive of employee wellbeing.

Lin and Lin (2014) suggest that the development of an *organisation health culture* is achieved through cultivating employee health values and behaviours. To do so, health needs to develop at the core of the organisation and distributed throughout the organisation formally and informally (Lin & Lin, 2014). It is suggested that for an organisation to become a 'healthy organisation' there needs to be involvement at a leadership level, the development of health

policies and strategies based on employee needs (Lin & Lin, 2014). These authors found that organisations that had better health cultures placed more importance on the planning, implementation and evaluation of health promotion programs, which lead to better ongoing implementation of programs. It could be suggested that leadership support for wellbeing, other co-workers and the internal working culture could be important facilitators to a wellbeing culture and thus, participation in an exercise initiative. Nevertheless, this research suggests that the organisation does indeed influence participation and thus, there is a need investigate how employee perceptions of different organisational aspects may facilitate exercise participation, such as leadership support for wellbeing, co-worker support and work demands, which are to be discussed further.

2.6. Job Demand-Resource Theory

A useful framework to study the perceptions of organisational factors, is the Job Demands-Resources model (J D-R Model). This model is useful to consider what ‘resources’ might support participation and what ‘demands’ might inhibit participation. The J D-R model maintains that employee wellbeing is the influenced by aspects of the job, which can be divided into job resources and job demands (Bakker & Demerouti, 2007; Schaufeli & Taris, 2014). The J D-R Model is designed to understand burnout, a “chronic state of work related stress” and work engagement, “a positive fulfilling psychological state” (Schaufeli, 2017, p.1). Poor working conditions and burned out employees can lead to increased absence due to illness, poor work performance, and reduced productivity whereas good working conditions and engagement lead to the opposite (Schaufeli, 2017). Academic research has found that individuals who reported stress at work, reported acting on this stress through cutting corners of quality control, covering up incidents at work, lying about sick days and deceiving customers (Danna & Griffin, 1999). Theoretically, in the context of this study, these job and working conditions may also influence whether employees participate in an exercise initiative.

The J D-R model maintains that every job has demands and resources (Schaufeli, 2017). Job demands are described as the aspects of work that drain energy and that require sustained physical or mental effort, for example, long hours, conflict, work overload, or job insecurity (Schaufeli, 2017). On the contrary, job resources are described as the aspects that help to achieve work goals and stimulate personal growth and development, for example, co-worker

support, supervisor or role clarity. Excess job resources create a ‘motivation’ process, which leads to improved work engagement and increased willingness to exert effort into work tasks and this results improved work performance and job satisfaction (Bakker & Demerouti, 2007; Schaufeli, 2017). Job resources have the potential to buffer the effects of job demands and any of their respective physiological and psychological costs. When job demands are not compensated by job resources, employees use up more of their energy and this may result in state of mental exhaustion, ‘burnout’ and this leads to many negative outcomes for individuals and the organisation (Bakker, Demerouti & Sanz-Vergel, 2014; Schaufeli, 2017). In regards to a workplace exercise initiative, it is theorised that work demands may negatively influence an employee’s likelihood of participating in an exercise initiative. This is based on the logic that excessive demands experienced by employees will result in increased pressures to be at work and less time and energy for putting in effort into exercise. On the other hand, job resources are theorised to positively influence employee participation in exercise initiatives.

2.8. Job Resources

2.8.1. Co-worker Support

Exercise initiatives with a supportive workplace culture are more likely to be successful and this suggests that co-worker support could positively influence exercise participation (McLellan et al., 2009; Neyens & Childers, 2017). Other people within the organisation such as senior management and fellow colleagues are perceived to be a motivator or a barrier to participation (Bredahl et al., 2015; Pedersen et al., 2013). Additionally, past research has reported that the support of other colleagues is especially important for motivating ‘high-risk’ employees to participate in workplace exercise initiatives (Paguntalan & Gregoski, 2016). Furthermore, colleagues who are non-participants can be perceived as a barrier because they pressure participants to work and not to exercise (Bredahl et al., 2015; Brinkley et al., 2017a). This also creates uncertainty around the provided program (Edmunds et al., 2013; Brinkley et al., 2017b). This suggests that co-worker attitudes towards the exercise initiative can be a barrier to participation if it is unsupportive of the exercise initiative or if it places the exercise initiative as a low priority even if employees were initially supportive (Bredahl et al., 2015). As the past research has demonstrated that co-workers have an influence on employee participation, this study is investigating the organisational factor co-worker support.

Supportive relationships between co-workers create a positive environment that is encouraging and supportive and can make work situations less stressful (Carlson & Perrewé, 1999). Co-worker support is a resource that may positively affect motivation and encourage extra effort, thus, leading to improved engagement and therefore, wellbeing (Schaufeli, 2017). Therefore, co-worker support may help with the motivation and extra effort required to participate in exercise. It is theorised that if individuals feel as though their co-workers place a high-priority on each other's wellbeing and care about them, they will feel more encouraged to participate in an exercise initiative. If individuals have unsupportive co-workers, they may feel uncomfortable leaving work to exercise, discussing wellbeing and thus, less motivated to participate in exercise initiatives. This study hypothesises that higher levels co-worker will be related to higher levels of participation in exercise initiatives.

2.8.2. Leadership Support of Wellbeing

An organisational culture of wellbeing and exercise is mostly driven by the leadership in an organisation (Lin & Lin, 2014; Zula, 2014). Academic literature has emphasised the importance of engaging leadership support of wellbeing on all management levels for the success of any wellbeing initiatives (Miller, 2016; Lin & Lin 2014; Zula, 2014). The support of and participation of senior leadership is thought to be especially important as it adds validity to the exercise initiatives, helps to embed the desired exercise behaviours into the culture of the organisation and overall, helps build a health oriented culture within the organisation (Cooper & Patterson, 2008; Lin & Lin, 2014). Senior management have a strong influence on all aspects of the organisation and their participation and support of initiatives sends a convincing message about the importance of employee health (Milner et al., 2013). It has been suggested that employees will be less likely to be interested in participating in an exercise initiative if they believe managers are only superficially interested in the initiatives rather than genuinely wanting to improve employee wellbeing (Milner et al., 2013). It is theorised that an organisational 'health' culture starts with the leadership being supportive of wellbeing and furthermore, that if all levels of leadership are supportive of wellbeing, employees will be more inclined to participate. Additionally, if employees perceive their organisation to care about their wellbeing and their achievements at work, perhaps they will feel more obliged to care about wellbeing too and as a result more motivated to participate in exercise. Therefore, this

study hypothesises that leadership support of wellbeing improves the level of participation in exercise initiatives and therefore, improves the outcomes of the initiatives.

2.8.3. Workplace Flexibility

Past qualitative research on barriers to participation in exercise initiatives has found that some employees perceive ‘work’ to be a barrier (Bredahl et al., 2014). For example, too much work to do, deadlines or inflexible work hours, and this suggests job demands may prevent employees from participating in exercise initiatives. One of the most reported barriers to participation is perceived lack of time as several studies demonstrate that employees felt they did not have time for exercising or travelling to centres to exercise (Bredahl et al., 2015; Edmunds et al., 2013; Pedersen et al., 2013; Person et al., 2010). Time to exercise is also dependent on the flexibility of their job (Bredahl et al., 2015; Edmunds et al., 2013). For example, one study in a call-centre found that a barrier to employee participation was that they have fixed hours, strictly monitored breaks and have changing weekly shifts (Edmunds et al., 2013). Accordingly, on lunch breaks, they only have enough time to eat and no time to participate in exercise (Edmunds et al., 2013). Past research has researched lack of time as a perceived barrier on an individual level, however, it does not address temporal flexibility as an organisational factor. In other words, a job resource that could be facilitating or inhibiting to participation in an exercise initiative.

Temporal flexibility refers to the extent to which an employee has control over their work schedule (Clark, 2001). In recent decades, modern organisations have improved the amount of flexibility employees have with their work schedules, allowing them to manage their time around family and personal commitments and thus, encouraging work-life balance, minimising stress and improving wellbeing (Clark 2001). Temporal flexibility as a job resource can lead to increased motivation and work engagement (Richman, Civian, Shannon, Hill & Brennan, 2008). From a theoretical perspective, temporal flexibility should also positively affect exercise participation. Higher levels of temporal flexibility would give employees the ability to make time for exercise participation around their work schedule. Thus, this study hypothesises higher levels of temporal flexibility will be related to higher levels of participation.

2.9. Job Demands

2.9.1. Workload

As above, work aspects such as workload has been suggested as a barrier to participation (Bredahl et al., 2014). Workload and other work aspects such as meetings outside of the workplace, deadlines, and urgent tasks have all been qualitatively reported as perceived barriers to exercise as a result of work (Bredahl et al., 2015; Pedersen et al., 2013). Furthermore, as a result of these work aspects, it has been reported that if an individual felt if they were to leave work to go exercise, they would feel stressed about work accumulating (Bredahl et al., 2015). Evidently, previous research has suggested how work can be a perceived barrier on an individual level, but it has not investigated how role overload, a job demand, may negatively affect participation.

Workload is one of the leading job demands that are predictive of burnout (Lee & Ashworth, 1996). Prolonged exposure to job demands such as role overload lead to employees potentially becoming exhausted (Bakker et al., 2014). It is logical to suggest that employees who experience higher levels of work overload are going to be less likely to participate in exercise due to lack of time, energy and stress. Thus, this study hypothesises that higher levels of role overload will be related to lower levels of participation in an exercise initiative.

2.9.2. Employee Barriers to Participation

As this study is investigating factors that may influence the participation in an exercise initiative, it is important to include barriers to physical exercise as they have a significant influence on participation. Past literature has shown that perceived barriers on an individual level that have a negative influence on individual participation in exercise initiatives (Bredahl et al., 2015; Sallis et al., 1989). Barriers are factors that prevent individuals from engaging in exercise despite it being encouraged or provided to them in a workplace exercise initiative. As previously discussed, one of the most reported barriers to participation is perceived lack of time (Bredahl et al., 2015; Edmunds et al., 2013; Pedersen et al., 2013; Person et al., 2010). In addition, a reported barrier to exercise is perceived lack of energy, and consequently, employees would rather spend their leisure time relaxing (Edmunds et al., 2013).

However, the perceived barriers for some employees can be motivators for others. It could be suggested that there are certain aspects of an initiative that are deal breakers for employees. Some employees are more motivated to participate in social and competitive activities, such as team sports or group classes (Edmunds et al., 2013). Additionally, these types of activities are perceived as fun and eliminate the potential barrier of the initiative being boring (Edmunds et al., 2013). In the same study, employees suggested that committing to being a part of a team would enhance their motivation to partake in exercise sessions because of the dependence created between participants (Edmunds et al., 2013). Some participants are motivated by the supportive culture amongst colleagues, moreover they enjoy the social aspect of exercising together (Bredahl et al., 2015). However, although some may find this motivating, for some individuals, exercising around other colleagues is a barrier to their participation.

Furthermore, another barrier faced by employees is lack of incentives to exercise. A barrier for exercise in general, not only for initiatives, is that exercising does not have immediate, visible results (Cawley & Price, 2013). For many, especially higher risk individuals, personal health and fitness is not a sufficient incentive to exercise. The discussed barriers mostly represent individual level barriers perceived as external to the employee, however, psychological attributes can also be a barrier to participating in an exercise initiative. Self-efficacy refers to an individual's belief in their ability to complete a task (Andersen, 2011). Research has shown that self-efficacy influences adherence to a workplace exercise program (Andersen, 2011). The attitude towards health and fitness is also a barrier to participation (Lovato & Green, 1990). Those who have exercised before are much more likely to participate in the program (Abraham et al., 2011; Lovato & Green, 1990; McGillivray, 2005). Overall, despite organisation's efforts, some individuals are going to be uninterested, less motivated and less likely to participate in exercise initiatives.

Hypothesis 1: *Higher levels of resources and lower levels of demands are expected to relate to a higher likelihood of participation in an exercise initiative.*

Specifically, it is expected that higher levels of co-worker support (H1a), leadership support for wellbeing (H1b), temporal flexibility (H1c), and lower levels of role overload (H1d) and barriers to physical exercise (H1e), would increase the likelihood of participation.

Hypothesis 2: *Higher levels of resources and lower levels of demands are expected to be related to higher levels of participation frequency in an exercise initiative.*

Specifically, it is expected that higher levels of co-worker support (H_{2a}), leadership support for wellbeing (H_{2b}), temporal flexibility (H_{2c}), and lower levels of role overload (H_{2d}) and barriers to physical exercise (H_{2e}) would increase the frequency of participation in an exercise initiative.

2.10. Motivation to exercise

A key determinant of participation is individual motivation to participate. Theories of motivation indicate that people initiate and sustain certain behaviours to the point where they believe such behaviours will achieve certain desired outcomes or goals (Deci & Ryan, 2000). Motivation to participation in physical exercise is differentiated between intrinsic and extrinsic motivations (Buckworth, Lee, Regan, Schneider & DiClemente, 2007; Mullan, Markland & Ingledew, 1997; Ryan, Frederick, Lepes, Rubio & Sheldon, 1997). Intrinsic motivation can be “defined as engaging in an activity in the absence of rewards” (Markland, 1999, p.1). Intrinsically motivated actions are generally those motivated by personal satisfaction and enjoyment gained from participating in the activity itself (Markland, 1999; Ryan et al., 1997). Whereas, extrinsically motivated actions are those driven by the desire to achieve rewards or outcomes that are separate from the behaviour itself or in some instances even to avoid negative external consequences (Buckworth et al., 2007; Ryan et al., 1997).

Participation in a workplace exercise initiative can be activated by both intrinsic and extrinsic motives and there will always be different levels of each between the two extremes (Mullan et al., 1997; Ryan et al, 1997). For example, employees are unlikely to be solely intrinsically motivated to exercise at work, especially given all the planning and commitment involved with an exercise program and additionally, an individual is unlikely to be only extrinsically motivated to participate in exercise and then consistently participate in an exercise initiative (Mullan et al., 1997). Intrinsic motivation is said to be associated with “feelings of control” and this has been referred to as self-determination (Buckworth et al., 2007; Markland et al., 1999). Self-determination theory (SDT) maintains that automatically people are self-motivated, curious and eager to succeed because success is seen as personally satisfying and

rewarding (Deci & Ryan, 2008). According to SDT, different people act on certain behaviours to pursue different goals (Deci & Ryan, 2000). Thus, intrinsic and extrinsic motivations will vary for different people.

Workplace exercise initiatives may use intrinsic or extrinsic motivation techniques; however, intrinsic motivational techniques are believed to have better response (Buckworth et al., 2007). Intrinsic motivated exercise is said to be more likely to be maintained and less likely to subside, such as in the absence of external rewards (Buckworth et al., 2007). Evidence has shown that extrinsic rewards can in fact be detrimental to intrinsic motivation to participating in exercise (Buckworth et al., 2007). Extrinsic rewards could support a more external locus of control and therefore, decrease autonomy and individual intrinsic motivation (Buckworth et al., 2007). Intrinsic motivation plays an important role in exercise behaviours and described as a key factor to exercise adherence (Buckworth et al., 2007; McAuley, Wraith & Duncan, 1991; Ryan et al., 1997). Individuals who experience high intrinsic motivation are going to be more likely to participate in exercise initiatives and do so on a continuous basis (Buckworth et al., 2007; Ryan et al., 1997). Intrinsic motivation has a strong influence on an individual's likelihood to participate in exercise, thus, organisational factors would have less of an influence on individuals who already have high intrinsic motivation to participate, consequently, this study hypothesises that:

Hypothesis 3 *Intrinsic motivation is expected to moderate the relationship between the demands (role overload H_{3a} , barriers to physical exercise H_{3b}) and the likelihood of participation (yes vs. no).*

2.11. Perceived Intentions of Exercise Initiatives

In strategic human resource management, there is a model called the *black box* problem, which is used to build better performance outcomes (Boxall, 2008). As illustrated in Figure 1, there are important linkages to be considered between employer's intentions and the organisation's performance (Boxall, 2008). The black box problem suggests that there can be major gaps between management intentions and management actions, and this may be damaging to employee perceptions and thus, to attitudes and behaviour (Purcell & Hutchinson, 2007). The links between an employer's intentions, employee perceptions and exercise initiative outcomes can be illustrated through this black box model. Despite whatever the

employer's intentions may be of an exercise initiative, this suggests that there are other linkages to be considered carefully to achieve the actual desired outcome.

There is little research regarding the employer's intentions of implementing initiatives and how this could influence employee perceptions of the exercise initiative or the exercise initiative effectiveness (Dalager et al., 2017). Given that it is often the employers or senior management of an organisation that make the decisions regarding what initiatives are implemented, it should be an important aspect of research, however, this appears to be a gap in current literature. Principally, senior management or employers are those who decide whether to implement an initiative or not in the first place and would have a great influence on the way it is implemented into the organisation. Thus, there is a need to study the connection between the implementation intentions of management and actual implementation. Furthermore, academics have also suggested there is this gap between the intentions and actual implementation (Dalager et al., 2017; Miller, 2016).

Based on this black box model, that the way in which employee perceive to be the intentions of an exercise initiative may influence their attitudes towards the initiative itself, and therefore, their decision to participate or not. As previously discussed, it has been suggested that if management don't authentically care about employee wellbeing, employees will less likely be interested in the provided initiatives (Milner et al., 2013). This indicates that a perception of employer intentions might influence employee participation. Therefore, this study expects that when employer intentions are perceived to be genuine and caring towards employees, employees will be more likely to participate. Thus, this study is interested whether different perceived intentions of the employer, influence employee participation in the exercise initiative. Moreover, it is expected that these intentions would affect the proposed relationship between resources and participation.

Therefore, this study hypothesises:

Hypothesis 4: *Perceived employer intentions are expected to moderate the relationship between resources (co-worker support H_{4a} , leadership support for wellbeing H_{4b} , temporal flexibility H_{4c}) and the likelihood of participation (yes vs. no).*

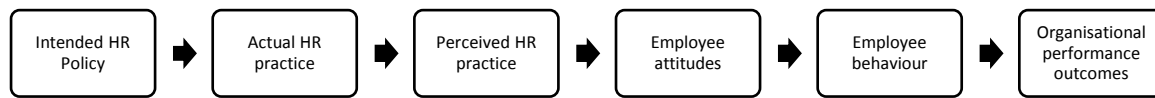


Figure 1. The HRM performance causal chain ('Black box' model).

Note: Adapted from “Frontline Managers as agents in the HRM-performance Causal Chain: Theory, Analysis and Evidence” by J. Purcell & S. Hutchinson, 2007, *Human Resource Management Journal*, 17(1), p. 7.

2.12. Overview of Study Framework

The conceptual model being tested in this study is illustrated in Figure 2. This model proposes that the availability of job resources will positively influence employee participation in an exercise initiative, and that excessive job demands and barriers will both negatively affect employee participation. The relationship between demands and participation is expected to be moderated by intrinsic motivation Furthermore, the relationship between resources and participation is expected to be moderated by perceived employer intentions. The study examines the influence of resource and demands on both the propensity to participate in an initiative, as well as the frequency of participation for those who choose to do so.

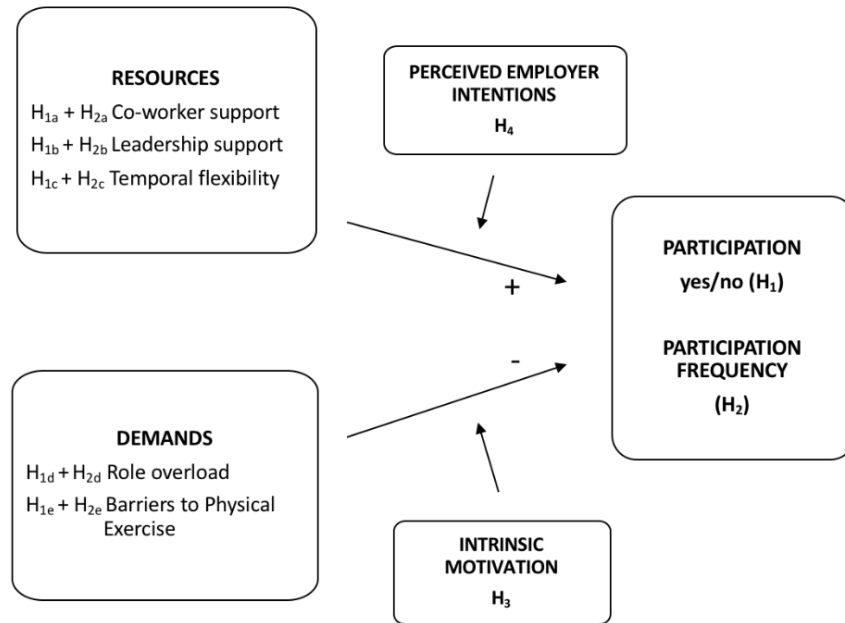


Figure 2. Framework for This Study: The Influence of Resources and Demands on the Participation in, and Outcomes of an Exercise Initiative.

2.13. Chapter Summary

In summary, this chapter presented the background and theoretical context for this study. There is strong evidence that exercise initiatives can achieve many positive outcomes for both the employer and employees. However, the discussion on initiative design emphasised that it is only a worthy investment if it is implemented well, as there are a number of issues that may arise that can hinder the effectiveness of an exercise initiative. Employee participation is a key challenge when implementing an exercise initiative. Henceforth, the following sections discussed the various factors that influence employee participation. This discussion concluded that academic literature fails to give a holistic view as to how individual as well as different organisational factors may influence the performance of an exercise initiative, accordingly, this is where this study is focussed. This chapter is concluded with an overview of the study framework based on J D-R theory, which links the hypotheses developed throughout the literature review. The following chapter will discuss the methodology of this research, and phase 1 of the research.

Chapter Three: Methodology

3.1. Overview of study design

This study had a mixed-methods sequential explanatory research design that consisted of two phases. Mixed-methods sequential explanatory design refers to two distinct research phases, a quantitative phase followed by a qualitative phase (Creswell & Creswell, 2018; Ivankova et al., 2006). Not only does mixed-methods recognise the significance of both quantitative and qualitative research but it also provides more “informative, complete, balanced and useful research results” (Johnson, Onwuegbuzie & Turner, 2007, p. 129). This mixed-methods approach is guided by a pragmatic worldview, where the research is based on the assumption that collecting diverse types of data provides a more complete understanding of a research problem than either quantitative or qualitative alone (Creswell & Creswell, 2018). It is also suggested that a mixed-methods approach can provide superior research findings (Johnson et al., 2007). However, it is a more time consuming approach as it involves the collection and analysis of two types of data (Ivankova et al., 2006).

In this study, Phase 1 consisted of an online questionnaire, which was primarily quantitative. This was followed by Phase 2, a qualitative phase, which involved semi-structured interviews with participants from phase 1. The phases were analysed separately, then both findings were integrated into final conclusions and the implications of this research. In this study, most of the emphasis is on the quantitative phase to test the developed hypotheses and model, and furthermore, this phase helped guide the qualitative phase. The purpose of this approach is that the quantitative phase finds the answers to the research question and the qualitative phase is to refine and further explain the quantitative findings through exploring the views of research participants more extensively (Ivankova, Creswell & Stick, 2006; Creswell & Creswell, 2018). An advantage of this approach is that the second phase allows further exploration of quantitative data and it becomes particularly valuable when there are unexpected results in the quantitative phase of the study (Ivankova et al., 2006). Furthermore, a benefit of this approach is that the survey data is useful for identifying interview participants and also, for directing some of the questions in the semi-structured interviews (Creswell & Creswell, 2018).

Phase 1: Survey

3.2. Method

The survey was run online. A survey design is used to provide “a quantitative or numeric description of trends, attitudes or opinions of the population by studying a sample of that population” (Creswell & Creswell, 2018, p. 12). The purpose of the survey was to answer the research question through testing the developed hypotheses. A survey is good for statistical analysis and investigating relationships between variables, such as those in the developed framework (Creswell & Creswell, 2018). Furthermore, it allows sampling of a larger group of participants and in a timely manner (Creswell & Creswell, 2018). A survey was also deemed suitable for this research as there are already validated scales for organisational factors and barriers to physical exercise.

3.3. Participants

There were 98 responses to the survey. The participants were mostly female (74.2%), the rest male (25.6%). The average age of participants was 42 (SD=14.75). 52.6% of participants had taken part in an exercise initiative in their workplace, leaving 47.4% of participants who had not participated. The survey participants had been employed at their organisation for on average 5 years (SD=5.55).

3.4. Materials

All items were measured with a Likert scale from 1 (Strongly disagree) to 7 (Strongly Agree) unless otherwise specified. See Appendix 7.1 for the survey. The ‘snowball’ survey started by excluding anyone who have not had an exercise initiative in their workplace in the past six months (n=3). Furthermore, participants were required to answer some additional questions about the nature of their organisation and exercise initiatives.

3.4.1. Resources

Co-worker support

To assess co-worker support, the Co-worker support scale was taken from Näswall et al. (2010). This scale consisted of three items. An example item is “*I usually receive help from*

my co-worker when something needs to be done quickly". The internal reliability for the scale was acceptable ($\alpha=.82$).

Leadership Support scale

The Leading by Example (LBE) Instrument measures the degree of leadership support for health promotion in the workplace (Della, DeJoy, Goetzel, Ozminkowski & Wilson, 2008). This scale assesses the level of leadership support and engagement in health promotion. An example item is "*Our organisation goals and plans advocate for the improvement of employee health*". The internal reliability for the scale was acceptable ($\alpha=.89$).

Temporal Flexibility

Temporal Flexibility scale was adapted from Clark (2001). The original scale uses a Likert scale of frequency experienced, never to always. However, to keep consistent with the rest of the questionnaire and to minimise any confusion, this study changed the scale to a scale of agreement. Temporal Flexibility consisted of three items. An example item is "*I am able to arrive and depart from work when I want*". The internal reliability for the scale was acceptable ($\alpha=.84$).

3.4.2. Demands

Role Overload

Role Overload was measured from Role Overload scale taken from Beehr, Walsh and Taber (1976). This scale consisted of three items. An example item is "*I am given enough time to do what is expected of me in my job*". The internal reliability for the scale was acceptable ($\alpha =0.84$) (Bolino & Turnley, 2005).

Barriers to Physical Exercise

Barriers to Physical Exercise measures were adapted from the Barriers to Physical Activity scale taken from Sallis et al. (1989). The Barriers to Physical Exercise scale consists of 15 items. In this study, participants were asked to rate the barriers from 'Not a barrier' to 'Severe barrier' on a 7-point Likert scale. The original scale asks how often factors prevent the respondent from exercising and uses a Likert scale of frequency (never to always). However, this study wanted to report on the severity of barriers and thus, a scale of "not a barrier" to

“severe barrier” was more fitting, and additionally, was far more readable than frequency. An example item is *“Lack of energy”*.

3.4.3. Intrinsic Motivation

Intrinsic Motivation was measured using the Intrinsic Motivation scale taken from Mullan, Markland and Ingledew (1997). This scale also consisted of three items. An example item is *“I exercise because it's fun”*. The internal reliability for the scale was acceptable ($\alpha = .90$).

3.4.4. Perceived purpose of the exercise initiative

Six items were developed for this study, as a scale that reflected perceived intentions of an initiative could not be found. An example item is *“to show employees that our organisation cares about our wellbeing”*.

3.4.5. Dependent Variables

Participation in the exercise initiatives (Yes/No)

The first section of the questionnaire measured the extent of the participants participation in the exercise initiatives – *“Yes – I regularly go to the ‘initiative’, I have occasionally taken part in the ‘initiative’ or No (your participation in this survey is still very valuable)”*. Survey participants were also provided the opportunity to comment on their participation.

Participation Frequency

Participation frequency was measured on a scale of 1 =No participation, 2 =Less than once a month, 3 =Monthly, 4 =Fortnightly, 5 =Weekly, 6 =Twice a week and 7 =More than twice a week. Those who indicated they didn’t participate in the exercise initiative were only required to answer the first participation question. For this question, the non-participants were automatically coded as a 1 for no participation. Non-participants were included in this measure as not to exclude almost half the participants from the study.

3.4.6. Open-ended Questions

In the survey, it was necessary to have some open-ended questions, to gather any unsuspected data, to prevent the online questionnaire from becoming too long and thus,

frustrating participants, and all the while achieving a more specific understanding of how different factors may be influencing participation.

Motivation to participation/enabling factors

To investigate what factors were motivating for the employees or if there were other organisational factors that were particularly enabling to participation in exercise, participants were asked qualitatively if there were any motivating factors. There were two open-ended questions: *“What were your key motivations to participating in the exercise initiative provided to you by your workplace?”* and *“What were any factors that really helped you to participate more?”* Although scales of motivation to exercise exist, this study chose to ask an open-ended question as it does not limit the responses that participants can give. Additionally, the second question aimed to uncover any organisational factors that may be enabling to exercise participation.

Barriers to participation

In addition to the barriers to physical exercise scale, participants were also asked qualitatively if there were any other factors that may have prevented them from participating in the exercise initiative(s) provided to them in their workplace. The question was worded as: *“If there were any other barriers you experienced, please feel free to describe them below”*.

Perceived Employer Intentions

In addition to the scale, there was an open-ended question to further investigate what employees perceive their employers intentions to be.

3.4.7. Interview Participants

The last section of the survey asked participants if they were willing to participate in a semi-structured interview. If 'yes' was selected, participants were asked to fill in their contact email or phone number. This identifying data was removed from the main data file.

3.5. Procedure

Three organisations were recruited to participate in this study. These organisations were recruited based on the criteria of having or recently having had an exercise initiative in their

workplace in the past six months. These organisations were recruited through calling or emailing an invitation to participate. HR managers were contacted if their details were available but otherwise organisations were contacted otherwise through their main phone number or email address. These organisations were asked to distribute the online questionnaire to their employees by email, this was done by an HR employee or in one case, an administrative employee. In addition to this, other participants were identified using snowballing sampling (n=9).

The online questionnaire was constructed using Qualtrics, an online survey tool. Initially, the survey was piloted by fellow university students to test the usability and readability of the questionnaire. The feedback received was mostly positive but did include feedback on the order of one of the survey item scales, which was different to other items. This was addressed accordingly by reversing the response anchors. The questionnaire was tailored to fit each organisation by altering the names of the organisation and the names of the particular initiatives that the organisation had in place. This was to make the online questionnaire more readable to the participants and improve the external validity of the study. External validity refers to the extent to which research findings are generalizable across other contexts such as across different groups of people or settings (Allen, 2017). In order to improve the external validity, as to represent a real-life context, the questions need to be worded fittingly for, and easily understood by the participants. A link to the survey was then distributed by an HR manager in the participating organisations by email. The email provided an explanation of this project, estimated length of time that the survey takes, requirements to participate and of the prize draw. As a thank you to participation, there was a prize draw for three \$50 vouchers within each organisation that participated and for snowball participants. To keep the participant data anonymous, at the end of the survey, there was a link to a separate survey for participants to fill in their contact details and go in the draw to win the prize. Participants were given approximately 14 days to complete the questionnaire.

3.6. Ethical Considerations

This study followed the guidelines of the Human Ethics Committee (HEC) at the University of Canterbury (UC). Furthermore, this study was approved by the HEC as low-risk. At the beginning of the questionnaire, participants were informed of the purpose of the

questionnaire, what is involved, their anonymity or confidentiality, and that their organisation may receive a report of the overall findings, but with no identifying information, and additionally, that they may withdraw from the survey at any time up until they submitted their responses. Furthermore, participants were informed that the researcher will ensure their data remains confidential and that no person or organisation will be identified. Participants were required to electronically consent to the conditions before beginning the survey. For the prize draw, contact details were entered in a separate survey from the main survey. Furthermore, as participants willing to participate in an interview entered in their contact details on the main survey, after interview participants were selected and interviews conducted, their details were removed from the survey data.

3.7. Results

To analyse the survey data, a range of statistical techniques were used, including factor analysis, descriptive statistics, and both logistic and linear regressions. SPSS statistics version 23 was used to conduct the statistical analysis. Firstly, using descriptive statistics the characteristics of the sample were examined, such as gender, age, and tenure. The 15 Barriers to Physical Exercise item severity scores were calculated into a mean severity score to represent the average severity of barriers experienced for each participant. This was followed by factor analyses for the co-worker support, leadership support for wellbeing, temporal flexibility, role overload, intrinsic motivation and perceived employer intentions scales, before calculating of composite scores for these scales. The internal reliability (Cronbach's Alpha coefficients) of measures were computed. To test the hypotheses, logistic and linear regressions were used to investigate the relationship between the independent variables and dependent variable - participation - , and lastly, to test for possible moderating effects.

3.7.1. Factor Analyses

To investigate the dimensionality of multi-item measures of co-worker support, leadership support for wellbeing, temporal flexibility, role overload, intrinsic motivation and perceived employer intentions factor analyses were conducted. In particular, this was necessary for perceived employer intentions as these items were developed for this study. For all the factor analyses, principal axis factoring (PAF) with direct oblimin rotation was used. It is expected that there are latent constructs and this analysis allows for correlation between items,

which is often the case with psychological variables (Field, 2013). The Kaiser-Meyer-Olkin Measure (KMO) verified the sampling accuracy. All of the KMO values were greater than 0.6, and this is above the acceptable limit of 0.5 (Kaiser, 1974). Bartlett's test of sphericity were all significant ($p < 0.001$). The Bartlett's test of sphericity tests the null hypothesis through comparing the correlation matrix and identity matrix (Field, 2013). Criteria for factor inclusion were that eigenvalues were greater than one and that the scree plot also supported the number of factors drawn (Field, 2013). For items to belong to a factor, it was necessary that no cross loadings greater than 0.3 were allowed and that all items needed to have loadings greater than 0.4 (Hair, Black, Babin, Anderson, & Tatham, 2006). As all pre-established scales were one dimensional as expected, composites were calculated for co-worker support, leadership support for wellbeing, temporal flexibility, role overload and intrinsic motivation. Of the six Perceived Employer Intention items included in the questionnaire, three items met this previously described criteria, of which, a composite was made. The three items that were calculated in to the composite included: *"to make employees happy"*, *"to demonstrate to employees that my organisation cares about their wellbeing"* and *"to improve workplace dynamics"*. The items that were excluded were *"to make the organisation look good in terms of being a responsible and caring employer"*, *"to address poor health among employees"* and *"to reduce costs e.g. from absent employees, healthcare costs"*.

3.7.2. Assumptions of Regression analyses

Before commencing the main analyses, it was necessary to check the assumptions required for regression analysis.

The data was inspected using descriptive statistics for influential cases. It was found that there were no outliers as there were no z-scores above 3 or below -3 (Field, 2013). The normally distributed errors assumption was met by observing histograms. The homoscedasticity assumption was met as the p-plots show random arrays of dots and no funnelling (Field, 2013). There was no multi-collinearity as there was no high correlation coefficients (strongest $r = .46$), and furthermore, all VIF scores were less than 10. The average VIF score was not substantially greater than 1 and tolerance scores were greater than 0.3 (Field, 2013). The assumption of independent errors is met as both Durbin Watson values are greater than 1 and less than 3 (Field, 2013). Table 1 presents a summary of the correlations between all the variables included in the analysis.

Table 1. Means, Standard Deviations, Cronbach's Alphas, and Correlations between Study Variables.

	Mean	SD	1	2	3	4	5	6	7	8	9
1. Participation YES/NO	-	-	-								
2. Frequency of participation in the exercise initiative	-	-	-	-							
3. Co-worker support	6.23	0.96	.15	.15	.80						
4. Temporal Flexibility	5.25	1.59	-.19	-.06	.17	.86					
5. Leadership Support for Wellbeing	4.92	1.18	.25*	.29**	.46**	.08	.91				
6. Role Overload	4.15	1.40	-.03	-.02	-.27**	-.14	-.06	.80			
7. Barriers – mean severity	2.72	1.02	-.10	-.13	-.18	-.17	-.14	.05	-		
8. Intrinsic Motivation	5.46	1.27	.20	.18	.07	.15	.07	.01	-.38**	.86	
9. Perceived Employer Intentions	4.99	0.90	.47**	.49**	.37**	.15	.48**	-.19	-.05	.14	.75

Note. Cronbach Alphas appear on the diagonal; * $p < .05$, ** $p < .01$; N=98; Participation frequency was measured on a 7-point scale of 1 =Not at all, 2 =Less than once a month, 3 =Monthly, 4 =Fortnightly, 5 =Weekly, 6 =Twice a week, 7 =More than twice a week; Barriers to Physical exercise was measure on a 7-point scale of 1 =Not a barrier to 7 =Severe Barrier; All other scales were measured on a 7-point scale of 1 =Strongly Disagree to 7= Strongly Agree.

3.8. Hypothesis testing

This section commences with a presentation of the results from the first two hypotheses, which tested the relationship between the independent variables, resources and demands, with participation (yes/no) and participation frequency in exercise initiatives. This is followed by two moderation analyses. The first tests for a moderation effect of intrinsic motivation on the relationship between job demands and participation, and the second tests for moderation of perceived employer intentions on the relationship between job resources and participation. Following this section is a presentation of the results from the thematic analysis of the qualitative questions that were included in the survey. Finally, this section concludes with a summary of the overall findings from Phase 1 of the study.

3.8.1. Participation in Exercise Initiatives (participated vs. not) (H1)

Hypothesis 1: *Higher levels of resources (co-worker support H_{1a} , leadership support for wellbeing H_{1b} , temporal flexibility H_{1c}) and lower levels of demands (role overload H_{1d} , barriers to physical exercise H_{1e}) are expected to relate to a higher likelihood of participation in an exercise initiative.*

Logistic regression analysis was used to test the amount of variance that the predictors accounted for in participation (vs. not). Participation was categorised as yes and no (coded as no = 0, yes = 1). The control variables, demographics, were entered at step 1 on the regression. These included gender (coded as male = 1 and female = 2), age and tenure. The control variables are not variables this study is interested in, but are rather entered to remove their effects from the equation. The predictors of co-worker support (H_{1a}), leadership support for wellbeing (H_{1b}), temporal flexibility (H_{1c}), role overload (H_{1d}) and barriers to physical exercise (H_{1e}) were entered at step 2 of the regression.

Table 2 presents a summary of the logistic regression. The logistic regression was statistically significant, $\chi^2(5) = 11.86$, $p < .05$. The model explained 23% (Nagelkerke R^2) of the variance in participation and correctly classified 64.3% of cases. The inclusion of the predictors in step 2 significantly increased the variance explained in the model by 14.3%. Furthermore, with the inclusion of the predictors, the model now correctly classifies 5.1% more cases (Field, 2013).

Each individual predictor was further investigated and temporal flexibility (H_{1c}) ($B = -0.37, p < .05$) was a significant predictor in the model. However, contrary to expectations, this relationship was negative. The likelihood of an employee not participating increases by 1.46 times per unit more of temporal flexibility experienced. The other predictors co-worker support (H_{1a}), leadership support for wellbeing (H_{1b}), role overload (H_{1d}) or barriers to physical exercise (H_{1e}) were not statistically significant in the model.

Table 2. *Results from a Logistic Multiple Regression Predicting Participation in Exercise Initiatives.*

<i>95% CI for Odds Ratio</i>					
	B (SE)	Sig.	Lower	Odds Ratio	Upper
Block 1					
Gender	-0.64(0.48)	.19	0.21	0.53	1.36
Age	-0.03(0.02)	.06	0.93	0.97	1.00
Tenure	0.00(0.04)	.98	0.93	1.00	1.08
Block 2					
Gender	-0.60(0.51)	.24	.20	.55	1.49
Age	-0.03(0.02)	.08	.93	.97	1.00
Tenure	0.01(0.04)	.76	.93	1.01	1.10
Co-worker support	0.20(0.28)	.49	.70	1.22	2.12
Leadership support for wellbeing	0.41(0.23)	.07	.97	1.51	2.36
Temporal flexibility	-0.37(0.16)	.02*	.51	.69	.94
Role overload	0.06(0.18)	.75	.75	1.06	1.49
Barriers mean severity	-0.18(0.23)	.44	.53	.84	1.32
Constant	0.58(2.30)	.80		1.78	

Note. Age and Tenure are measured in years; $R^2 = .14$ (Hosmer & Lemeshow), .17 (Cox and Snell), .23 (Nagelkerke). B=unstandardized, SE=Standard error. * $p < .05$

3.8.2. Participation Frequency in Exercise Initiatives (H2)

Hypothesis 2: *Higher levels of resources (co-worker support H_{1a} , leadership support for wellbeing H_{1b} , temporal flexibility H_{1c}) and lower levels of demands (role overload H_{2a} , barriers to physical exercise H_{3b}) are expected to be related to higher participation frequency in an exercise initiative.*

Multiple regression analysis was used to test the amount of variance that predictors accounted for in frequency of participation in exercise initiatives. Firstly, to calculate this outcome variable, all non-participants were automatically coded as 1=no participation, thus, completing the scale as a 7-point scale. Control variables were entered in step 1 of the regression, this was followed by the predictors simultaneously entered in step 2 with forced entry method.

As presented in Table 3, there was no significant collective effect for all the predictors and participation frequency. However, the inclusion of the predictors in step 2 significantly increased the variance explained in the model by 9%. The individual predictors were examined further and leadership support for wellbeing (H_{2c}) was a significant predictor in the model ($B = 0.41, p < .05$). This means that the more that leadership in an organisation supports, promotes and plans for improving wellbeing, the more frequently they are likely to participate in exercise initiatives. Furthermore, opposing to expectations, co-worker support (H_{2a}), temporal flexibility (H_{2c}), role overload (H_{2d}) and barriers to physical exercise (H_{2e}) were not found to be significant predictors of participation or participation frequency in an exercise initiative. Therefore, there is insufficient evidence to support these individual hypotheses.

Table 3. *Results from a Multiple Linear Regression Predicting Frequency of Participation in Exercise Initiatives.*

		B	SE B	β
Step 1	(Constant)	2.56*	1.01	
	Gender	0.50	0.45	.11
	Age in years	-0.02	0.01	-.13
	Tenure	0.01	0.04	.02
Step 2	(Constant)	1.04	2.06	
	Gender	0.44	0.44	.10
	Age in years	-0.01	0.01	-.11
	Tenure	0.01	0.04	.04
	Co-worker Support	0.07	0.24	.04
	Leadership support for wellbeing	0.41*	0.19	.25
	Temporal Flexibility	-0.13	0.12	-.11
	Role Overload	0.03	0.15	.02
	Barriers – mean severity	-0.17	0.20	-.09

Note. $R^2 = .03$, Adj. $R^2 = -0.01$ for Step 1; $\Delta R^2 = .09$ for step 2 ($ps > .05$); * $p < .05$.

3.8.3. Moderation: Intrinsic Motivation and Demands (H3)

Hypothesis 3: *Intrinsic motivation is expected to moderate the relationship between the demands (role overload H_{3a} , barriers to physical activity H_{3b}) and the likelihood of participation (yes vs. no).*

Hierarchical logistic regression analysis were performed to test whether intrinsic motivation might moderate the relationship between each demand, barriers to physical exercise and role overload, and participation in the exercise initiative (yes or no). Both predictors were mean centred to compute the interaction term. Demographics were entered in the first block, followed by independent and moderator variables (block 2) and then the interaction term (block 3).

Table 4 presents a summary of the results from the logistic regression moderation analysis of intrinsic motivation, barriers to physical exercise, and role overload with participation. The results indicated no significant interaction. Therefore, neither hypothesis 3a nor 3b were supported.

These results show that intrinsic motivation did not significantly influence the relationship between the demands, role overload and barriers to physical exercise, and participation in an exercise initiative. Although not hypothesised in this research, there was a significant moderate association between intrinsic motivation and the mean severity of barriers to exercise ($r = -0.38, p < .01$), suggesting that there is a negative relationship between intrinsic motivation and the severity of barriers experienced, as shown in Table 1. This negative association suggests that those who are more intrinsically motivated, possibly experience a lower level of severity of barriers to exercise, likewise, those who are less intrinsically motivated experience barriers on a higher level of severity.

Table 4. *Summary of Hierarchical Regression Analyses of Intrinsic Motivation Moderating Demands Predicting Participation (yes vs. no).*

95% CI for Odds Ratio						R²
Variable	B(SE)	Sig.	Lower	Odds Ratio	Upper	
Step 1						0.09
Gender	- 0.64(0.48)	.19	0.21	0.53	1.36	
Age	-0.03(0.02)	.06	0.93	0.97	1.00	
Tenure	0.00(0.04)	.98	0.93	1.00	1.08	
Step 2						.12
Gender	-0.64(0.49)	.19	0.20	0.53	1.38	
Age	-0.03(0.02)	.11	0.94	0.97	1.01	
Tenure	-0.01(0.04)	.76	0.91	0.99	1.07	
IM	0.27(0.19)	.16	0.90	1.31	1.91	
ROD	0.07(0.16)	.68	0.78	1.07	1.46	
Barriers to PE	-0.04(0.23)	.85	0.61	0.96	1.50	
Step 3						.13
Gender	-0.66(0.50)	.18	0.19	0.52	1.37	
Age	-0.03(0.02)	.10	0.93	0.97	1.01	
Tenure	-0.01(0.04)	.76	0.91	0.99	1.07	
IM	0.30(0.20)	.13	0.91	1.35	1.99	
ROD	0.09(0.17)	.57	0.79	1.10	1.53	
Barriers to PE	-0.04(0.23)	.87	0.61	0.96	1.52	
ROD*IM	0.12(0.19)	.53	0.77	1.13	1.64	
Barriers*IM	-0.17(0.33)	.60	0.44	0.84	1.60	

Note. Gender is coded 1 = male, 2 = female; Barriers to PE = Barriers to physical exercise; ROD = Role Overload; IM = Intrinsic Motivation; Age and Tenure are measured in years; R² (Nagelkerke).

3.8.4. Moderation 2: Perceived Employer Intentions and Resources (H4)

Hypothesis 4: *Perceived employer intentions are expected to moderate the relationship between resources (co-worker support H_{4a} , leadership support for wellbeing H_{4b} , temporal flexibility H_{4c}) and the likelihood of participation (yes vs. no).*

Hierarchical logistic regression analysis were conducted to test whether perceived employer intentions (PEI) moderate the relationship between resources and participation (yes vs. no). Similar to the intrinsic motivation moderation analysis, a logistic regression was used to investigate whether perceived employer intentions moderate the relationship between each resource, and participation in the exercise initiative (yes vs. no). Again, demographics were entered in the first block, followed by the predictors and moderator variables (block 2) and then the interaction terms (block 3). Where there were significant moderation effects, simple slope tests were then used to further assess whether the relationship between the predictors and participation was significant at different values of perceived employer intentions (Dawson, 2014).

Table 5 shows the results from the logistic regression testing the moderation effect of perceived employer intentions and resources with participation. There was no significant moderation found with perceived employer intentions for co-worker support or temporal flexibility on participation (yes vs. no). However, there is a moderation effect for leadership support for wellbeing (H_{4b}) although it does not meet the conventional p value ($p = .05$).

Table 5. *Summary of Hierarchical Regression Analyses of Perceived Employer Intentions Moderating Resources Predicting Participation (yes vs. no).*

	95% CI for Odds Ratio					R ²
Variable	B(SE)	Sig.	Lower	Odds Ratio	Upper	
Step 1						0.08
Gender	-0.56(0.49)	.26	0.22	0.57	1.50	
Age	-0.03(0.02)	.06	0.93	0.97	1.00	
Tenure	-0.00(0.04)	.97	0.92	1.00	1.08	
Step 2						.43
Gender	-.41(0.59)	.48	0.21	0.66	2.09	
Age	-0.03(0.02)	.10	0.93	0.97	1.01	
Tenure	0.00(0.05)	.94	0.91	1.00	1.10	
CWS	0.04(0.04)	.89	0.55	1.04	2.00	
LS	0.14(0.29)	.63	0.65	1.15	2.02	
Flex	-0.47(0.17)	.01**	0.44	0.62	0.88	
PEI	1.62(0.44)	.00**	2.16	5.07	11.92	
Step 3						.49
Gender	-.49(0.61)	.43	0.18	0.61	2.05	
Age	-0.03(0.02)	.16	0.93	0.97	1.08	
Tenure	-0.02(0.05)	.67	0.88	0.98	1.97	
CWS	-0.15(0.42)	.72	0.37	0.86	1.81	
LS	0.05(0.28)	.87	0.61	1.05	0.86	
Flex	-0.54(0.20)	.01**	0.40	0.59	25.20	
PEI	2.11(0.57)	.00**	2.72	8.27	1.05	
CWS*PEI	-1.19(0.63)	.06	0.09	0.31	4.62	
LS*PEI	0.76(0.39)	.05	0.99	2.14	3.91	
Flex*PEI	0.32(0.53)	.55	0.49	1.38	1.01	

Note. Gender is coded 1 = male, 2 = female; CWS = Co-worker support, LS = Leadership support for wellbeing, Flex = Temporal Flexibility, PEI = perceived employer intentions; Age and Tenure is measured in years; ** $p < .01$; R² (Nagelkerke).

Figure 2 depicts the interaction between leadership support for wellbeing and perceived employer intentions with regards to participation (yes/no). This moderation implies that the relationship between leadership support for wellbeing and participation, changes according to the value of perceived employer intentions. As expected, when there were more positive perceived employer intentions, high leadership support for wellbeing coincided with higher likelihood of participation (H_{4b}). When employees perceived the intentions of their employer to be most genuine and caring about employee wellbeing, and experience high leadership support for wellbeing, they are more likely to participate in the provided exercise initiative. Furthermore, if participants experienced a low value of perceived employer intentions, participation likelihood was much lower, despite high level of leadership support for wellbeing.

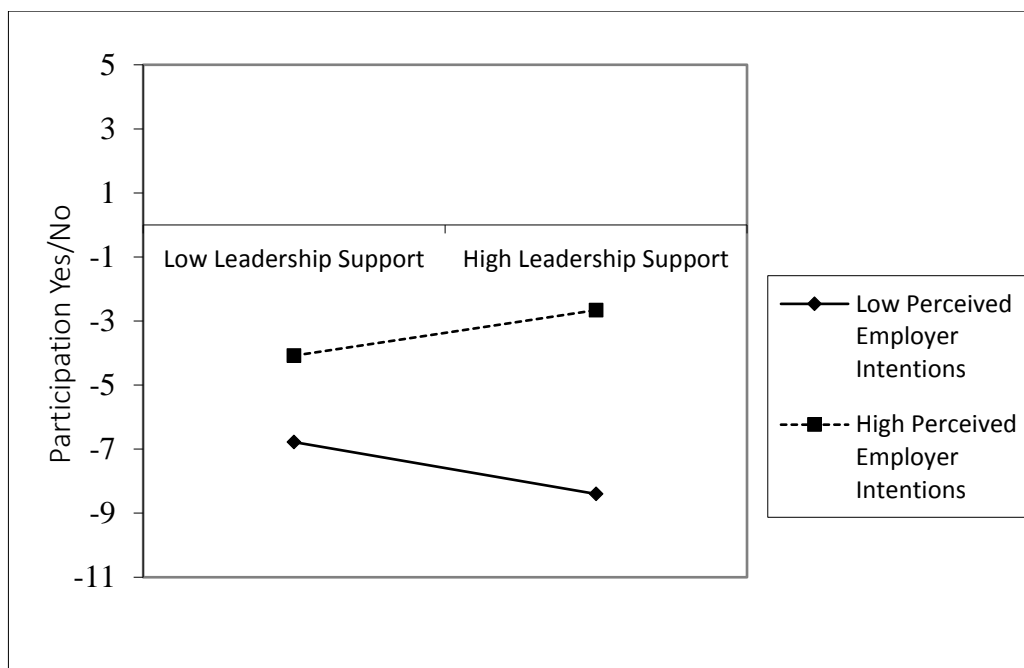


Figure 3. Leadership Support for Wellbeing by Perceived Employer Intentions predicting Participation (Yes/No)

3.8.5. Perceived Employer Intentions

These moderation results revealed a significant main effect between perceived employer intentions and participation ($B = 2.11, p < .001$). For every unit more positive of perceived employer intentions, employees are 8.27 times more likely to participate in an exercise initiative. The addition of perceived employer intentions improved the significance of the logistic regression model equation, as shown in step 2 of the model, $\chi^2(4) = 31.32, p < .001$

(Table 5). The model explained 43% (Nagelkerke R^2) of the variance in participation and correctly classified 76.3% of cases. To summarise, these results imply that the more employees perceive their employers to have genuine and caring intentions, the more likely they are to participate in the exercise initiative and additionally, the more frequently they are likely to participate. Although, this was not hypothesised, this presents a unique finding to this research.

3.9. Qualitative Survey Questions

The following section presents the findings from the qualitative survey questions. All of the responses were read through and coded into themes. These findings help to explain the quantitative results and further understand the influence different organisational factors may have on participation. The emergent themes from the survey data were also useful for the development of the interview questions used in Phase 2 of the study. As the answers to both motivation and enabling factors were similar and around the same topics, they were analysed together. Additionally, participants described other factors that are inhibiting to their participation in the exercise initiatives provided to them. Table 6 presents an overview of the findings in terms of categories, and additionally, in terms of motivators/enablers and barriers to participation. This is followed by the emergent themes from the open-ended question investigating perceived employer intentions.

Table 6. *Table of Main Categories of Motivations and Barriers to Participation from the Survey.*

Main Category	Sub-category	Themes
Organisational Factors	Enablers	The support of co-workers and managers (n=12)
		Flexibility (n=4)
	Barriers	Work Demands (n=4)
		Colleagues (n=1)
Implementation Factors	Motivations	Convenience (n=11)
	Barriers	Issues with the Initiative (n=4)
		Unaware of the initiative (n=4)
		Free exercise (n=6)
Individual-level Factors	Motivations	Socialisation (n=15)
		To get healthy (n=11)
		To get fitter (n=10)
		To get away from desk (n=10)
		To improve mental wellbeing (n=6)
		Competition (n=1)
	Barriers	Injury/health issues (n=6)
		Prefer to exercise alone (n=2)

3.8.1. Organisational Factors

Organisational factors describe the aspects that influence participation that are perceived to be external to the individual employee and part of the organisation.

1. Co-worker support – the support and encouragement from colleagues, others enthusiasm and a friendly environment was perceived as facilitating to participation.

“Doing things together with my work colleagues.”

“Support from colleagues other people doing it on staff.”

2. Manager support – the support and ongoing promotion for exercise participation from managers was seen as facilitating to participation.

“encouragement by management via email or in person, team members buddying me and encouraging me as I have difficulty leaving my desk and making time for exercise but ALWAYS benefit from it and actually work better when taking that time out.”

“Supportive manager and encouraging colleagues.”

3. The flexibility of work – the ability to leave work for exercise as a result of flexible work hours or through having sufficient staff to allow for exercise breaks.

“The flexibility afforded by my manager in trusting me to self-manage my hours and trusting that I will deliver the work required of me in the time that suits me best.”

“Flexible work hours.”

“Additional staff resulting in less workload, giving me the ability to leave my desk for a break.”

4. Work demands - workload, time constraints, commitments such as meetings, and travelling for work were perceived as inhibiting to participation in exercise initiatives.

“Workload stopped me from being able to attend majority of the time.”

“Mainly time constraint and work commitments (meetings etc.).”

“Workload.”

5. Other colleagues – the behaviour of other colleagues can be perceived as inhibiting to participation when it is perceived as non-supportive behaviour.

“I participated in the [initiative]. Some staff became very competitive and this made the participating in the initiative less about comradery and support, so I did not enjoy that aspect. Also some people became extreme in their exercise behaviour and lost a lot of weight. This was not healthy behaviour.”

Although the quantitative survey results suggested otherwise, these qualitative results indicate that co-worker support and temporal flexibility were perceived as facilitators to employee exercise and workload was perceived as a barrier to exercise. Co-worker support was perceived as enabling because participants enjoy doing activities with other people and additionally, found it supportive and encouraging to their exercise participation. However, there was one response suggesting that the behaviour of other colleagues was seen as inhibiting to their participation as it was seen as non-supportive. This could be suggested as an example where poor co-worker support has become inhibiting to participation.

Management support was seen as a positive facilitator of exercise, supporting the quantitative findings, given that higher levels of leadership support for wellbeing was found to be related to higher frequency of participation in exercise initiatives. Management support was reported to be shown through encouragement and through reminders to take time to exercise during the day, and this encouragement was perceived positively.

3.8.2. Implementation Factors

Implementation factors describes the aspects of the initiative itself or aspects of the way in which it has been implemented that are influential on participation.

1. Convenience – the initiative being at a convenient time and place is facilitating to participation.

“Also get a workout during the day, which is especially helpful in the winter when it is dark before/after work!”

“The prices for the initiatives (e.g. staff yoga and rec centre membership) are very reasonable compared to other yoga places. Also it is very convenient to do it on campus.”

“Easy way to do exercise - able to fit in during work hours (rather than before/after work).”

“Lunchtime is great to fit more exercise in and get away from desk.”

2. Free exercise

“Free pedometer was another incentive!”

“No cost to me, merely viewed as income supplement.”

“It’s free!”

3. Unaware of the initiatives – if employees are unaware of the initiative, then their non-participation is inevitable.

“I didn't see any notice about any exercise initiative. I didn't know that there was one.”

“Don’t know about the options”

“I have not participated because I didn't know about the initiatives. I have been doing my own exercising regardless though, but it would have been nice to know.”

4. Issues with initiative – the initiative too challenging for beginner exercisers is preventative to participation. Furthermore, two of the responses reported attending the initiatives and having a very negative experience.

“I went to boot camp once and it was not a place for all fitness levels. It was one of the most negative exercise experiences I've ever had (and I've had a few).”

“Bootcamp is far too hard for those of us starting out. Also, yoga, perhaps Pilates instead and low impact boot camp options. I did yoga once and couldn’t move very well for 3 days.”

“The issue I have with the exercise initiatives introduced is that they are only attended by staff who are already fit and healthy and regular exercisers. They don’t extend to those really needing them. For example no overweight staff attend because they just wouldn’t keep up or fit into the group.”

As discussed chapter 2, the design and implementation of the exercise initiative is important for participation as when it is done poorly this can inhibit participation. For some of the participants, the initiative itself was seen as facilitating in terms of being at a convenient time and place, and additionally, being free. However, on the contrary, some participants perceived the key barriers to their participation to be attributed to the initiatives themselves. First, in some cases, there was clearly issues with the implementation of the initiative, given that employees were completely unaware of the initiatives. A potential explanation of this could be the failure of management to promote the initiative or facilities provided.

Furthermore, it could be that the initiative didn't reach all departments in larger organisations. Secondly, in other cases, it was the design, or type, of initiative that was inhibiting to participation. For some cases, predominantly from the same organisation, the initiatives in place were perceived as far too difficult and was therefore, excluding certain groups of people.

3.8.3. Individual Factors

Individual factors describe any internal aspects that are specific to the individual that explain their participation or non-participation in the exercise initiative.

1. Socialisation – to meet other people, to spend time with colleagues and team members.

“Social - I did it with my team.”

“...and an opportunity to build relationships with people in other teams”

“Socialising.”

“... and to enjoy working out with other colleagues.”

2. To get healthy

“Health”

“Keeping healthy and general well-being.”

3. To get fitter

“Wanting to get fitter.”

“To stay fit and healthy.”

“I do not usually participate in HIIT exercise and I want to get better at it.”

4. To get away from their desk

“... And get away from my desk.”

“To get time away from my desk!”

“Take a break from my work (clear my head).”

5. Mental wellbeing

“Mental health wellbeing.”

“The yoga sessions however have been amazing, both in terms of the physical aspect of increasing my balance and flexibility, but the relaxation and focus on mental wellbeing has helped me a lot. I have used techniques learned in yoga sessions to help myself relax, fall asleep etc. outside of class.”

“... and think the mental health benefits are huge.”

6. Team cohesion

“To better fit into the team and for distraction from routine.”

“Good team work.”

“Building collegiality.”

7. Competition

“Beat people.”

8. Injury/health issues

“Migraines brought on by exercise.”

“Existing shoulder and knee injuries easily aggravated.”

9. Prefer to exercise alone

“No I exercise in my own time.”

“Preferring to exercise alone due to not being a part of the 'exercise crowd.' ”

The key motivations were based around self-improvement or self-care referring to improving their own health, fitness and mental wellbeing. Another interesting motivation was the idea of getting away from their desk, which could be suggested as a wellbeing aspect also. For example, getting away from their desk implies the need to de-stress and clear their mind from their work so they can return back to work refreshed. Additionally, other key motivations were based around social aspects in terms of spending time with colleagues, getting know other colleagues and building team cohesiveness.

From some survey participants, there appears to be a suggestion that there is a certain “exercise group”. Evidently, under implementation factors, it was suggested that overweight staff would not fit in to “the group” and under individual factors, another participant prefers to exercise alone due to not being a part of the “exercise crowd”. These findings could suggest that there is a sense of exclusiveness to the exercise initiative in place. Past literature has suggested that exercise initiatives can be limited by the way in which they automatically attract already fit and exercise-inclined employees and thus, exclude those who actually need it, non-exercisers.

3.8.4. Perceived Employer Intentions

The key perceptions of employer intentions included:

1. Genuine care for employee wellbeing and desire to improve health of employees (n=11)

“Genuine enthusiasm by some management with regard to both helping staff and giving something back to them.”

“To keep employees healthy and happy.”

2. To meet employee demands (n=5)

“Demand from staff to get access to free facilities and socialize with colleagues.”

“Demand from employees, health concerns amongst employees.”

“Some pressure from staff.”

3. Employee initiated - in other words, not the intentions of the employer, but rather the employees (n=5)

“Bootcamp initiatives were initiated by one of the staff. There never was any link to ‘organisation’ supporting this or providing incentives.”

“From what I've seen exercise initiatives are started by the employees without direction from upper/middle leadership tiers.”

“Bootcamp initiatives were initiated by one of the staff. There never was any link to ‘organisation’ supporting this or providing incentives.”

4. To improve team dynamics (n=5)

“To try and build on team bonding in a healthy an inclusive way by having something that will appeal to everyone.”

“Team bonding.”

5. To improve the organisations reputation (n=4)

“The boot camp has nothing to do with ‘organisation’ except for only ‘organisation’ employees attending. We run the boot camp ourselves and use the public park next door. I believe that the purpose of the gym is only to make the company look good. I have been here only 11 months and have yet to see any initiative on the company's part to promote health and wellbeing. In fact, all I have seen is the company refusing to address wellbeing issues in order to save money.”

“Look good without too much effort”

“To be seen to care about employee wellbeing.”

6. To meet certain requirements (n=4).

“To meet mandatory requirements imposed on a Public Sector organisation.”

The most reoccurring theme was the perception of the employer having genuine intentions to care for employees and to make employees happy. As shown in the quantitative results, this had a positive influence on employee participation. For the purpose of this study, it was necessary to speculate about the potential perceptions employees might have of their employer's intentions to develop a scale. In the quantitative analysis, the composite didn't include the item developed on reputation, however, evidently it was in fact a legitimate perception. It could be suggested that there was also a sense of cynicism in these responses, however, not necessarily towards the initiative but also, towards the organisation. Miller (2016), suggested that sometimes wellbeing initiatives can be introduced as add-ons to the organisations plans when budgets allow, but when budgets need to be cut, they are likely to be the first things to go. Furthermore, initiatives such as these will be view cynically by employees. These findings are useful to describe employee perceptions of employer intentions, and could be useful for future research and further development of quantitative measures.

3.10. Hypotheses Results and Chapter Summary

The key focus of the phase 1 results was to test the hypotheses developed in chapter 2. Hypothesis H_{2c} was supported and this showed that higher levels of leadership support for wellbeing was related to higher frequency of participation in an exercise initiative. Secondly, although, perceived employer intentions did not have a moderating effect for all resources, it had a significant moderation effect on the relationship between leadership support for wellbeing and participation (yes vs. no). Although, as noted this was not quite at the conventional p-value, as ($p = .05$). Additionally, a significant discovery, was the relationship Perceived Employer Intentions has with participation (yes vs. no). The qualitative findings on perceived employer intentions from the survey revealed some various perceptions of employer intentions and some of which, reflects the potential perceptions that were predicted in chapter 2 and in the other excluded items developed for perceived employer intentions. Although there was no individual significant effect for co-worker support (H_{1a}), qualitatively, participants expressed that their colleagues were key facilitators to their participation. Additionally, neither role overload (H_{1d}) nor barriers to physical exercise (H_{1e}) were significant predictors. Through the qualitative questions, participants described that sometimes their work is a barrier to their participation. The implications of these findings from these analyses will be discussed in more detail collectively with the findings from phase 2 in the discussion chapter, chapter 4.

Table 7. *Hypotheses Testing Results.*

Hypothesis	Supported
H_{2c} <i>Higher levels of leadership support of wellbeing are expected to be related to higher levels of participation frequency in an exercise initiative</i>	✓
H_{4b} <i>Perceived employer intentions are expected to moderate the relationship between leadership support for wellbeing H_{4b} and the likelihood of participation (yes vs. no).</i>	✓

Chapter Four: Phase 2: Semi-Structured Interviews.

4.1. Introduction

This section aimed to describe the second phase of the research. As previously discussed, the second phase consisted of semi-structured interviews, which were conducted to further understand and explain the findings from phase 1. Firstly, this section describes the method, participants, and the procedure. Finally, this section thematically presents the findings from the interviews and simultaneously explains what they mean in the context of this research.

4.2. Method

Semi-structured interviews were conducted to gather more in-depth data around similar topics to the online questionnaire. The semi-structured interviews were necessary to better understand the survey results and furthermore, tap into any themes or aspects of the organisation that the online questionnaire could not. Semi-structured in-depth interviews follow a general set of pre-determined questions but also, include other questions that emerge from the interview dialogue (DiCicco-Bloom & Crabtree, 2006). A semi-structured interview provides more in-depth insights on personal and social matters and allows the researcher to obtain a wider range of experiences, without the influence of other participants (DiCicco-Bloom & Crabtree, 2006). Additionally, this approach will allow for detailed insight into factors such as the organisational culture, which is limited through a quantitative approach (Boeije, 2010). Additionally, this in-depth information will help answer the research questions and without being limited by any preconceived ideas (Boeije, 2010).

4.3. Participants

At the end of the survey, participants were asked if they were willing to participate in an interview, and if yes, were required to fill in their contact details. The online questionnaire allowed the use of purposive sampling, accordingly, participants were selected based on their participation, or supervisory levels. This was done to get a variety of interview participants, and thus, to get a more representative sample. When a survey participant ticked yes to participating in an interview, they were contacted via email or phone. Furthermore, once a time and place was arranged, they were emailed the information sheet and consent form to review.

4.4. Interview Procedure/Protocol

There were seven semi-structured interviews, which were conducted face-to-face either at a local café or meeting room onsite. Each semi-structured interview took approximately 20-35 minutes. The interview was recorded to be transcribed with the consent of the respondent. The purpose of audio recording the interviews was to ensure the data was recorded and analysed most accurately. Participants were informed of the ethics, and that they may stop the interview and withdraw from the interview at any time. Furthermore, the researcher informed participants that their data is completely confidential and only the researcher, supervisors and transcriber will see any of the raw data.

The pre-interview phase involved, light small-talk and the researcher explained the purpose of the interview and went over the information and consent form with the respondent. This phase is not only to inform the participant about the interview but to also begin building some rapport with the interview respondent (Corbin & Morse, 2003).

The interview began with questions to get to know the respondent, their exercise habits and the extent of their participation in the exercise initiatives. This is otherwise known as the tentative phase, which was important to build trust and rapport with the respondent and also, to get to know the context of their occupation and their involvement in the exercise initiatives (Corbin & Morse, 2003). This was followed by the immersion phase, where all the key questions were asked. These questions were based on similar topics to the survey. Finally, the phase of emergence, where the interview was rounded up with some simple discussion generally on the topic of the initiatives and exercise.

Once the interviews were completed, the interviews were transcribed. Some of the interviews were transcribed with the help of a transcriber. The transcriber was required to sign a confidentiality form, and was required to delete all audio data and transcriptions after transcribing was completed. Thematic analysis was for analysing the interview data to identify reoccurring themes and patterns within the data (Braun & Clarke, 2006). According to Braun and Clarke (2006, p.82) “a theme captures something important about the data in relation to the research question, and represents some level of pattern response or meaning within the data set.” The analysis commenced with reading through the transcripts. This was followed by

the generation of codes that categorised the data. Through this coding of the data, a search for potential themes and sub-themes was then conducted (Braun & Clarke, 2006).

4.5. Findings

The interview results produced several different themes around organisational aspects and key influences on exercise participation. These themes include: a wellbeing culture and co-worker support, work demands, exercise initiative issues, incentives and perceptions of the exercise initiative and finally, employer involvement. Each theme is described and supported by relevant quotes from the interviews. The findings from the interviews were categorised into organisational, implementation and individual factors.

Table 8. *Table of Main Categories and Themes from the Semi-structured Interview Results*

Main Category	Sub-category	Themes
Organisational Factors	Enablers	Wellbeing culture
		Co-worker Support
		Flexibility
	Barriers	Workload
Implementation Factors	Barriers	Initiative Characteristics
		Lack of Incentives
Individual Factors	Motivations	Social Networking
		Extension of Gym Life
	Barriers	Perceptions of the Exercise initiative “exclusivity”
		Does own exercise

4.5.1. Organisational Factors

Organisational factors describe the aspects that influence participation that are perceived to be external to the individual employee and part of the organisation.

Wellbeing Culture

A workplace that was very supportive of wellbeing was suggested to be facilitating to participation, in terms of having managers and colleagues that consistently encouraged activities that supported wellbeing such as exercise. It made individuals feel as though it was acceptable to leave work to do exercise and furthermore, it encouraged them to participate in exercise. Additionally, for those who didn't participate in the exercise initiatives, seeing other colleagues leave to go exercise was perceived as motivating to them, as it made them feel as though they wanted to do something too.

"I really like that they kind of promote wellbeing and stuff because it makes me feel better about going to the gym" – Interviewee 7

"Yeah everyone's very encouraging of that" (wellbeing and looking after yourself). – Interviewee 7

"The culture, it's not in any way negative or anything that prevents me from doing anything here. It's a very flexible workplace." – Interviewee 2

"Ah yeah, the boot camps are good. Because, there's a range of people that go. So there's not just one team, there's not just sort of like managers and um, office sort of like staff, so there's a mixture. I think there's a good atmosphere. Yeah. I really enjoyed, yeah, working out with everyone else." – Interviewee 5

[So would you say wellbeing is quite, like a reasonably high priority at your work?] Person: "I think it is now. So, I've been at 'organisation' for like ten years, so I think comparing it to previously, I think now they're taking a much more pro-active approach to wellbeing. In terms of a good overall, you know, good working environment and taking in the fact that new health & safety legislation takes in mental health. [Yeah] Um, so they are trying to put things in place to provide all of those things." – Interviewee 4

"On Tuesdays and Thursdays, um, I see them all going out and I think, ahhh, you know? It makes you feel like you do want to do something

[Yeah?] And you know there's a good culture between all those people who do it, so I almost feel that there... and (want to) start doing it as well, and start building that (fitness) up.”- Interviewee 2

Additionally, it was found that some participants do not participate in the exercise initiatives but actually do their own exercise with their work team. Although their workplace exercise initiative is free, they choose to go somewhere else for their exercise. Firstly, because it suits their schedule but also so they can exercise together as a team.

“They (team members) don't (attend the exercise initiative) because there's four of us in the team that go to (another gym), the same place that... Because of convenience and we all can make the morning, the early morning sessions. Yeah, so we do that as a team. And because they all have staggered shifts.... like they start, one does breakfast, and one does an afternoon shift, and one does up to 8 o'clock. So everyone wouldn't be able to go at that time of the day.”

Co-worker Support

For new exercisers, co-workers played an important role in individual participation, however, for those who were already interested in exercise, co-worker support did not matter as much towards their regularity of attendance. Interviewees who were already motivated to exercise and regularly participated workplace exercise initiatives sometimes encouraged their non-exercising team mates to join but generally, still participated despite whether co-workers in their team did or did not. Although the support and encouragement of colleagues was still seen as a positive motivator such as a nudge to encourage their participation or a simple reminder to bring their gym gear. Despite

“I do have a colleague that works in my team, like the next desk next to me and she'll go and she'll give me a little elbow in the ribs, "It's time to go," or remind me to bring my gear.” – Interviewee 6

“Yeah. I really enjoyed, yeah, working out with everyone else.” – Interviewee 5

“Me and group of girls would go out running every day for lunch, and it was like every single day and like we were all there to be like “come on lets go for a run” even when you were like “augh can't be bothered” they were really encouraging for it.”- Interviewee 7

One informant who was not a regular exerciser or exercise initiative attendee, reported that they had tried out the exercise initiative once. When the interviewer asked about motivation to try the exercise initiative, they described that although they were nervous, and hadn't tried this certain type of exercise, that they still went along with their co-workers in their work team to a group exercise session. This suggests that although an individual may not usually choose to participate in exercise, the support of colleagues was a sufficient driver to encouraging them to give it a go. However, the same participant informed that although they didn't think they were too bad in the class, they were sore for days and felt it was too difficult and thus, would not participate again.

“I had a group with me. So there was quite a few of my team that went. But I was very nervous because I just didn't like how I looked in T-shirt and pants, so that was a big thing for me.” – Interviewee 2

Contrary to findings from past research (Bredahl et al., 2015), generally, participants were not uncomfortable working out with or in front of other colleagues. However, this potentially depended on the exercise options involved.

[Would you ever go exercise together?] “I would! Absolutely, definitely. I know like my organisation – the one I worked previously in and the one I worked in previously before that, they had an incentive of you could have an extended lunch break, I think it was up to an hour a day, if you were doing that for physical activity. Um so... that was like, me and group of girls would go out running every day for lunch, and it was like every single day and like we were all there to be like “come on lets go for a run” even when you were like “eugh can't be bothered” they were really encouraging for it. And then when I came here, I had support, like my manager, I had said to my manager, can I go to the gym every day and I make up the time after work, and he was like yeahyeah that's fine. So yeah we did that... and I think he came with me a couple times and was really encouraging and stuff.” –Interviewee 7

“I've got a team of seven, but I've worked here for about nine years. So for me it wasn't how other people would see me, whereas bootcamp it would be. Bootcamp would be very different for me. I would be the one that was dying in the background.” – Interviewee 2

Employer Involvement

There were mixed ideas around why certain exercise initiatives came about, but overall, initiatives were not often initiated by top management or furthermore, to implement a wider

wellbeing strategy. Exercise initiatives usually were organised by staff or departments, or the organisation had been approached by corporate fitness/wellness companies. One of the initiatives was enforced by an HR department where they do employ different wellbeing initiatives, however, the exercise initiative did not originate as a part of a greater wellbeing strategy. Although some suggested that the participation of upper management would be great to see, most weren't so bothered by whether they participated or not.

[Was there much upper management involved or was it sort of, something initiated by departments] "Ah, no. Yeah, it was more um, departments, or just someone not as senior. I mean, they supported things like that and they also supported indoor netball teams and touch teams." Interviewee 2

"I think it came about because the people who created it, were going around to businesses to say "hey, this is a wellbeing thing and because like, I guess, the 'organisation' promotes wellbeing, they came to us. And I think the reason they came to us is because someone had mentioned them. I actually think it was [our department] who had found someone. Someone had mentioned them and they came over to us. Like my manager or someone had made, like, we should this and get them in here and yeah we got them in here and they like talked about it, I think with the whole [organisation]. And then I think it went [organisation] wide. Yeah so they came over to see us." Interviewee 7

"I think verbally, yes, but I've never seen them at anything. So it's a question of if they took the time to attend stuff, would it be helpful? [Yeah] I don't know. It might be more scary, but I haven't seen any senior managers at anything... I think personally that it would be good for them. I think they'd get to interact with people they never interact with. Um, again in a previous organisation, I had a CEO who came to stuff. And it was amazing, because people knew him, personally. Whereas, you don't tend to have that interaction with other managers who aren't your own manager. So I think they'd benefit from coming, but I can see that again, it gets down to time. And when you're in senior roles, you have very little time" - Interviewee 1

Work Demands

Flexibility

Participation in exercise initiatives were dependent on the flexibility of their roles. For example, those with fixed hours, such as administrative roles, it was difficult to leave their work to participate. Whereas those with flexible hours, where they can choose to make up the time spent exercising later, found it very facilitating to their exercise participation.

“When I worked on Reception, I could only go every second... So, I went on Tuesdays and the other Receptionist went on Thursdays, because we couldn't both be gone. And that was a bit more difficult. My current role is infinitely more generous in that sense.” - Interviewee 3

“I go to the gym at lunchtime and can just make up the time on a Friday which is just an extra 30 minutes.” – Interviewee 7

Work load

Overall, it was established that work will always take priority. It was suggested that overly busy weeks, meetings, and schedules can hinder employee participation in exercise initiatives. However, it was also suggested that having flexibility in their hours allowed work to be completed later, so that no matter what the workload was, there was still time to exercise and that the work could still be completed and thus, facilitating time out during the day to exercise.

“Yes, it does. Because I work on a deadline, usually the last week before we go to print, because we go to print on Fridays every three months. That last week I usually just write off, because I don't even come into the office a lot of the time. And I usually just work either from home, or over at our designer's office. So, that kind of thing.” – Interviewee 3

“Oh yeah absolutely. I mean I have so much work to do now but um like I know that no matter what, because of me, I know that I will get the work done and I know that I have to get that work done. So as I say like, I will work that extra 30 minutes. And yeah. It will be done.” - Interviewee 7

4.5.2. Implementation Factors

Implementation factors describes the aspects of the initiative itself or aspects of the way in which it has been implemented that are influential on participation.

Initiative characteristics

The initiative played a significant role in participation in the exercise initiative. In one case, the exercise initiative provided was reported to be too boring. This was thought to be because it was a very individual-based exercise initiative and thus, there was no competitive aspect or group aspect to the initiative. The participation in this initiative died out after a few weeks. The difficulty level of the initiatives was another reported barrier to participation. For many individuals, the exercise initiative was perceived as far too difficult for them and that

there was a gap for an initiative of lower intensity to suit beginner exercisers and older employees.

“I just think that maybe there's a gap in what's being provided. It's a bit more, you know, for fit people and not really for people who need a bit of a, I don't know, who need a bit of a push as well, but also need something that they think that they can achieve” – Interviewee 2

“I did do the yoga when it first came out and couldn't really move very well for about three days.” – Interviewee 2

“So obviously, it would be better for me to do the boot camps with work because they're free and so I save money. But it was all in the summer and I don't do very well in the heat. Um, they do all their boot camps outside at like midday and I don't like the heat.” – Interviewee 4

Throughout both phases of research, was the suggestion of exercise initiatives being too hard for beginner exercisers. This was perceived as discouraging to those who potentially need it the most, more specifically, the non-exercisers. Some exercise initiatives were described as only attended by keen exercisers who are already fit. These findings demonstrate the importance of the design and implementation phase of exercise initiatives, and more explicitly, the importance of having targeted initiatives. As previously discussed, past research has suggested a limitation of exercise initiatives is the self-selecting nature, which leads to initiatives only reaching those who are already active people (Griffiths, 1996; McGillivray, 2002; Marshall, 2004; Macniven et al., 2015; Hunter, 2016). This was presented in this study in the sense that the exercise initiatives in this study are perceived to be of too higher intensity for beginner exercisers, thus excluding them. These qualitative findings showed that some employees do want to get fitter, but do not like the exercise initiatives available to them and therefore, they do not participate. Consequently, these results show that despite having a supportive environment, if the exercise initiatives are not designed to meet employee needs, then employees will not participate.

Secondly, in another organisation, the initiative was short-lived and this was perceived to be a result of the initiative being too boring and not involving any group-based features. As the key motivations to participation were socialisation and the encouragement of other co-workers, it is understandable why an individual-based initiative might be less attractive to employees.

Incentives

A common theme was the suggestion of having an added incentive and the reminiscence on past initiatives that had some type of incentive involving competition and prizes. Interviewees reported these as having higher levels of participation and more of those individuals who need it that don't usually exercise. For example, "biggest loser" or "biggest transformation" competitions with a monetary prize, or a team competition with a big prize for the team that collectively does the most steps over a period of time. These findings suggested that a lack of extrinsic motivations such as rewards and prizes was a hindrance to participation.

"We did a, like, um, biggest loser thing, which was really good. So they did it where you paid a fee to join, and then the office matched whatever combined was paid by participants, and there was a first, second and third cash prize for male and female at the end of whatever number of weeks we did it for" ... "I ended up winning it and got like \$500 bucks or something like that. [Oh my god!] It was a decent, um, initiative and motivation for doing it. I think we had weekly weigh-ins, I think there was like some info that got sent out weekly around about nutrition and exercise. So they did do things like that to go with it. The reason I think we stopped that was because there was no one kind of, to run it." –Interviewee 4

"I think the prize is definitely a motivator. There needs to be an incentive for people to do stuff, because obviously your own personal health is not an incentive enough, otherwise we wouldn't have obesity problems and things like that. So, I do think having a prize associated with things, does help people to be motivated to do it." – Interviewee 4

"Yeah with that other one, when those food bags came out. It was \$200 food bag voucher (oh wow). Yeah it was quite a big thing because we worked for a massive organisation then, they had lots of money so they, we all did it because we didn't win but like other team got these food bags. So it was kinda like cool." – Interviewee 7

4.5.3. Individual Factors

Individual factors describe any internal aspects that are specific to the individual that explain their participation or non-participation in the exercise initiative.

Social Networking

For many participants, the exercise initiatives in place were perceived as an opportunity to meet other people from departments as well as spend time with work friends or colleagues in their team. This was an especially important motivation for individuals who generally worked alone, not in a team.

“My role is quite interesting 'cause I sit in the team, but I don't really work with the team. I work with the whole business. So for me, going to something like this is really valuable. Because sometimes it gives me an 'in' with another team, 'cause I know one person really well.” - Interviewee 1

Extension of Gym Life

For some participants, the initiative provided to them were simply an extension of their already active life. Without the exercise initiatives, they would be exercising anyway whether this be as part of team sport or their own gym routines.

“I think I just want to stay fit for rugby” – Interviewee 1

“Again, I think a lot of the yoga people are people who do yoga, or have done, or would do yoga in their own life anyway”. – Interviewee 2

“So if the boot camps stopped, I wouldn't stop exercising.” – Interviewee 3

Perceptions of the exercise ‘exclusivity’

In addition to exercise initiatives being too difficult, there were certain perceptions of the exercise initiative and the group of employees who regularly attend, that were preventative to some employees’ participation. It was perceived that the bootcamp was only for avid exercisers, and that because they looked red-faced and tired afterwards, that it must be really difficult and for non-exercisers, out of their league.

*“Well, I know the people that go and I know that they're really fit. And they come back bright red, so that just indicates... [It isn't an easy class]”
– Interviewee 2*

“or the other one will just be that a lot of the ones that are in that group are quite fit, so there would be the kind of fear that you're the unfit one that either holds the group back or you don't feel confident enough to work out with more energetic, fitter people.” – Interviewee 4

“That's what puts people off, is that they can't handle it and they'll hate it and they'll never go back. That's how I feel anyway.” - Interviewee 2

“I think it's probably perception of things. I think people have an idea of yoga, that you've got to be able to do this, and I think bootcamp sounds scary. It's almost misnamed in some respects. So really it's just group training, but it sounds really scary.” – Interviewee 1

Furthermore, for some group classes, there is a need to reserve a spot and to do this, one needed to be on the mailing list. This automatically excludes individuals who haven't signed up to the mailing list, and this was suggested as a barrier to participation.

“I think just being on that mailing list and hearing.” - Interviewee 6

These findings along with qualitative survey findings, indicate that non-exercisers were being excluded from the initiative, due to the difficulty of the class and also, due to their own doubts. As discussed in chapter 2, a limitation of an exercise initiative is the self-selecting nature of participation (Griffiths, 1996; McGillivray, 2002; Marshall, 2004; Macniven et al., 2015; Hunter, 2016). Furthermore, that this self-selecting nature can reinforce inequalities found in society, as certain individuals will be excluded because of their predisposed tendency to not participate in physical activity and due to fear and embarrassment. As discussed in chapter 2, psychological attributes can also be a barrier to participating in an exercise initiative. Research has shown that self-efficacy influences adherence to a workplace exercise program (Andersen, 2011). Participants reported seeing the red faces of other employees post-participating in the exercise initiative. Moreover, because they perceive these people as fit or exercise enthusiasts, there are individuals who doubt that they could participate in the exercise too because if it is difficult for the fitter people, it would be far too hard for themselves. Thus, there is this fear developed of the initiative being too difficult, and additionally, that it would be embarrassing if they couldn't keep up with the group.

Does own exercise

Participants who are categorised as non-participants in the survey, aren't necessarily non-exercisers. Some interview participants reported doing their own exercise rather than participating in the exercise initiatives. These participants choose to do their own exercise due to personal preference, in terms of a preference of other exercise over the initiative or preference of time of day for exercising.

"I do my own thing with the gym I don't have time to do other stuff, is the basic reason of why I don't utilise what the work pays for." –Interviewee 4

"...like its fine for me to go out during work time, to go out to the gym to do that kind of stuff, but then I have to make up the extra hour later. Which is fine, but I have to do that at home, so I'm kind of trying to move away from that... work is during work time and then I don't think of work outside of work time." – Interviewee 4

"They don't because there's four of us in the team that go to HCC, the same place that... Because of convenience and we all can make the morning, the early morning sessions [Ah, OK] Yeah, so we do that as a team. And because they all have staggered shifts.... like they start, one does breakfast, and one does an afternoon shift, and one does up to 8 o'clock. So everyone wouldn't be able to go at that time of the day." – Interviewee 5

4.6. Summary of Phase 2 Findings

The aim of this research phase was to further understand and explain the findings from phase 1. The first key finding was the perception of a wellbeing culture, where the organisational culture and colleagues are perceived to be supportive of wellbeing and where wellbeing is to a certain extent, a great priority in their workplace. This wellbeing culture is perceived as facilitating to participation in exercise initiatives. Another key finding was the importance of having flexibility in their work schedule for facilitating exercise participation, despite contrasting results from phase 1. Lastly, although it is not where this study is focussed, the initiative itself played an important role in participation, and as this study is looking at participation, it should be addressed. There were some issues with and perceptions of the initiative itself, and this was preventative to participation. Furthermore, despite various facilitating organisational factors, issues with the initiative inhibited participation. The main findings from this phase are discussed further in conjunction with the survey results from phase 1 in the next chapter.

Chapter Five: Discussion

5.1. Introduction

This chapter discusses the main findings from this research in relation to the existing literature. Following this discussion, are the managerial and theoretical implications of this research. Finally, this is followed by the limitations of this research and recommendations for future research.

Summary of the Research Purpose

The purpose of this research was to investigate how individual and organisational factors influence employee participation in—a workplace exercise initiative. Utilising the J D-R framework, this research aimed to test whether certain job resources and demands, influence employee participation in a workplace exercise initiative. From the survey, there were four main findings from the quantitative results. Of the four hypotheses, two hypotheses were supported, firstly, leadership support for wellbeing (H_{3b}) influenced participation frequency in an exercise initiative. Secondly, perceived employer intentions moderated the relationship between leadership support for wellbeing and the likelihood of participation (H_{4b}). Thirdly, an unexpected finding was that temporal flexibility had significantly negative influence on the likelihood participation. Additionally, there was a non-hypothesised finding, where perceived employer intentions had a significant, positive influence on the likelihood of participation. Further understanding of these results were found within the qualitative survey results and the semi-structured interview results.

5.2. Co-worker Support

This study found that, quantitatively, co-worker support was not a significant predictor of participation in an exercise initiative (H_{2a}) or participation frequency (H_{3a}), however, the qualitative findings suggest otherwise. The qualitative findings showed that individuals perceived their co-workers to be a key enabling factor to their participation. The interview participants expressed that the support, enthusiasm and encouragement of colleagues is perceived very positively as it creates a comfortable and friendly environment to exercise in. This discrepancy potentially exists due to other influencing factors on participation, more specifically, factors concerning the implementation of the exercise initiatives. As discussed in

chapter 2, perceived barriers to exercise may arise from aspects of the initiative itself (Bredahl et al., 2015; Edmunds et al., 2013). The qualitative findings from both the survey and interviews revealed that in some of the cases there were other underlying issues with the initiatives in place, that were inhibiting to participation. Survey and interview participants suggested that the initiatives in place were not meeting the needs of employees. Furthermore, as shown in the survey results, some employees are unaware of initiatives in place. Paguntalan & Gregoski (2016) stated that co-worker support is especially important for non-exercisers to commence participation in an exercise initiative. Indeed, an interview participant reported that it was co-worker support that encouraged them enough to participate once, but due to a negative experience attributed to the initiative itself, will not participate again. In summary, co-worker is reportedly perceived as facilitating to participation, nevertheless, it was potentially due to other influencing factors that it was not a significant predictor of participation in this study.

5.3. Leadership Support for Wellbeing

Leadership that is supportive of wellbeing and that actively engages in the planning and promotion of wellbeing, is suggested as a critical element for the success of exercise initiatives (Della et al., 2008). Furthermore, it is suggested that employees are more likely to partake in wellbeing activities such as exercise initiatives when there is demonstrated commitment from all levels of leadership (Zula, 2014). Therefore, this study expected to see higher levels of leadership support for wellbeing have a positive relationship with participation in an exercise initiative. Indeed, the results from this study demonstrated the importance of leadership support in relation to participation in an exercise initiative. The results revealed that higher levels of leadership support for wellbeing (H_{1b}) was positively related to participation frequency. However, there was no relationship with the likelihood of participation (H_{1a}). These findings suggests that the more that leadership supports, promotes and plans for improving wellbeing, the more often employees will participate in exercise initiatives.

Existing literature has discussed leadership support for wellbeing as the key driver behind development of a health culture (Lin & Lin, 2014). The interview results suggested that when wellbeing behaviours, such as exercise, were generally accepted and encouraged by co-workers and management within their workplace, this was perceived as a positive facilitator to participation in an exercise initiative. These results imply the existence of a *wellbeing* or *health*

culture in their organisation. Subsequently, it could be also suggested that the leadership support for wellbeing not only facilitates more frequent exercise initiative participation, but is the key driver for this supportive wellbeing culture. Additionally, interview findings revealed that some individuals choose not to participate in the exercise initiative and instead participate in other group exercise activities with their work team. This could suggest that it was the presence of a wellbeing culture and supportive leadership that encouraged them to exercise, rather than the exercise initiative itself.

Academic literature suggested that the involvement and actual participation in exercise of senior leadership is essential in the development of a wellbeing culture and additionally, to improve the levels of participation in an exercise initiative (Cooper & Patterson, 2008; Lin & Lin 2014). The involvement of senior management is believed to add legitimacy to the exercise initiative and highlight the importance of wellbeing in the organisation (Cooper & Patterson, 2008; Lin & Lin, 2014). Therefore, attracting more attention to the initiatives, reducing potential apprehensiveness and encouraging participation throughout the organisation (Milner et al., 2013). Although leadership support for wellbeing had a positive relationship with participation frequency, the interview participants indicated that employers or senior management had very little actual participation in the exercise initiatives themselves but the participants still maintained there was a supportive wellbeing culture present in their organisation. Although some interview respondents reported that the participation of upper management would be great to see, most were indifferent to whether they participated or not. In summary, the participation of senior management may be beneficial to add legitimacy to initiatives, however, the findings from this study did not suggest it was a factor to participation.

5.4. Temporal Flexibility

Academic research has emphasised perceived lack of time as one of the most reported barriers to exercise (Bredahl et al., 2015; Edmunds et al., 2013; Pedersen et al., 2013; Person et al., 2010). Furthermore, research had reported that perceived barriers to employee participation was fixed work hours and changing weekly shifts (Edmunds et al., 2013). Bredahl et al. (2015) suggested that there is a need to ensure all employees have the flexibility to ensure flexibility throughout the day. Thus, this study expected temporal flexibility to be an enabling factor to participation. However, the hypotheses that higher levels of temporal flexibility (H_{2c},

H_{3c}) would be increase the likelihood of participation and be related to higher levels of frequency, were both not supported. Contrarily, there was actually a significant negative relationship between temporal flexibility and the likelihood of participation. Therefore, higher levels of temporal flexibility reduced the likelihood of participation in the exercise initiative.

Survey and interview results indicated that a number of non-participants of the exercise initiative, do their own exercise rather than participate in the exercise initiative. For example, some participants choose to go to an outside gym alone or participate in other group exercise with their co-workers. More explicitly, these individuals choose to make the most of their flexible work schedules to do other exercise. This suggests that a potential explanation of temporal flexibility increasing the likelihood non-participation in the exercise, was that it did not restrict participants to the initiative as the only source of exercise and furthermore, it allowed them to partake in their own choice of exercise at their preferred time. Thus, leading temporal flexibility to have a negatively relationship with participation in workplace exercise initiatives.

5.5. Role Overload

Past research suggested that work aspects such as too much work, deadlines, and meetings were barriers to participation in exercise initiatives (Bredahl et al., 2015; Pedersen et al., 2013). Thus, this study expected to see job demands negatively relate to participation. However, contrary to expectations, role overload had no significant relationship with participation (yes vs. no) (H_{1d}) or frequency of participation (H_{2d}) in this study. A suggested explanation could be found through the interview findings. Interview findings suggested that flexibility allowed them to still participate in exercise when they had a busy workload. This suggests that temporal flexibility has the ability to buffer the effects that role overload could have on participation. To illustrate, although an employee may have a heavy workload, if they have flexibility in their work schedule, they can still leave work to exercise as they have the ability to make up for the lost time spent exercising later in the day or in the week. The J D-R model implies that resources can reduce the negative effects of demands (Bakker, Demorouti & Sanz-Vergel, 2014; Schaufeli, 2017). This suggests that rather having a positive effect on participation, perhaps, temporal flexibility should have a moderation effect on role overload, which was not represented in this study.

5.6. Barriers to Physical Exercise

Recent academic research has largely been focussed on barriers to physical exercise as a predictor to exercise participation (Abraham et al., 2011; Bardus et al., 2014; Bredahl et al., 2015; Edmunds et al., 2013; Paguntalan & Gregoski, 2016; Person et al., 2010; Sallis et al., 1989). Despite past studies reporting barriers to physical exercise to be a strong predictor of exercise participation (Sallis et al., 1989), barriers to physical exercise had no significant relationship with the likelihood of participation (H_{1e}) or participation frequency (H_{2e}) in this study. This study expected that higher severity scores would negatively influence the likelihood and frequency of participation in an exercise initiative. Although non-significant, Table 1 shows that barriers to physical exercise had a negative correlation with participation, which is in the expected direction. Again, it could be suggested that those who experienced less barriers to physical exercise, didn't participate in the workplace initiative and instead exercised in their own time, due to personal preference.

5.7. Intrinsic Motivation

Past research has established that individuals who experience high intrinsic motivation are more likely to participate in exercise initiatives on a continual basis (Buckworth et al., 2007; Ryan et al., 1997). Therefore, individuals who are more intrinsically motivated would be more likely to participate in exercise, regardless of workload and barriers to participation. Despite academic literature suggesting intrinsic motivation as a strong influence on whether individuals participate or not, intrinsic motivation did not moderate the relationship between demands and participation as hypothesised (H_3) (Buckworth et al., 2007; McAuley et al., 1991; Ryan et al., 1997). However, the findings did present that there was a moderate-strong correlation between intrinsic motivation and barriers to physical exercise, implying that those with higher levels of intrinsic motivation experienced the severity of barriers to a significantly lesser degree. Although not directly hypothesised, the hypothesis 3b was based on the expectation that those that higher intrinsic motivation would buffer the negative influence of barriers to participation. It would be logical that more intrinsically motivated would be less influenced by barriers to physical exercise, especially lack of interest or lack of enjoyment, lack of enjoyment. However, the hypothesis 3 was not supported. A potential explanation to why this hypothesis wasn't supported is a lack of extrinsic motivation.

Although the literature suggests intrinsic motivational techniques tend to have a better response, it also suggests that employees are unlikely to be solely motivated intrinsically (Mullan et al., 1997; Ryan et al, 1997). Participation in an exercise initiative is activated by both intrinsic and extrinsic motives and there will always be different levels of each. In the interview findings, it was found that a lack of extrinsic motivations such as rewards and prizes was a hindrance to participation. Therefore, it could be speculated that insufficient extrinsic motivational techniques had a negative effect on participation and moreover, that extrinsic motivational techniques would increase participation. It could be suggested that the lack of extrinsic motivation lead to the insignificant moderation effect of intrinsic motivation in this study.

5.8. Perceived Employer Intentions

As discussed in Chapter 2, the ‘black box’ model illustrates that occasionally there are important linkages missed between the intended HR practices and employer behaviour and organisational performance (Boxall, 2008). The employee perceptions of HR practices are always at the core of HRM-performance models, as it is the link between employee reactions and employee behaviours that is critical (Purcell & Hutchinson, 2007). Hence, the expectations in this study that were that the employee perceptions of employer intentions of an exercise initiative, would buffer the influence that perceived job resources have on employee participation in an exercise initiative. This study found that perceived employer intentions moderates the relationship between leadership support for wellbeing (H_{5b}) and the likelihood of participation in an exercise initiative. A higher level of perceived employer intentions indicated a higher degree to which an employee perceives the employers intentions of the exercise initiative to be genuine and caring towards employees. These findings show that leadership support for wellbeing only has a significant influence on the likelihood of participation, when perceived employer intentions are also high in terms of being caring and genuine. Therefore, supporting this study’s expectations grounded from the black box model.

Additionally, the results revealed a significant relationship between perceived employer intentions and employee participation. The results from the survey demonstrated that when employees perceived the intentions of their employer to be very genuine and caring towards employees to a higher value, they were more likely to participate. Although this was

not hypothesised as a direct relationship, this presents a unique finding to this study. Likewise, that when employer intentions were perceived to be not genuine, employees were less likely to participate. These findings imply that the way in which employees perceive to be the intentions of an exercise initiative influence their perceptions of the initiative itself, and thus, their decision to participate or not, such as that of the black box problem. Academic literature had not yet investigated the relationship between perceived employer intentions and employee participation in the context of an exercise initiative and therefore, this research provides a unique insight on perceived employer intentions.

The qualitative findings provided further descriptions of employee perceptions. It had been suggested in the literature, that if employees perceive their employer intentions to be superficial, in other words, not authentically caring about employee wellbeing, employees would be critical of the initiative and also, less likely to participate (Miller, 2016; Milner et al., 2013). The interview findings to some degree have supported this suggestion. Qualitative findings from the survey presented a common perception of participants, which was that the initiatives had been implemented with little thought, furthermore, described as a “half-hearted attempt”, or ticking a box, rather than a well-thought out strategy. Additionally, there was the common perception that the main purpose of the initiative was to improve the organisation’s reputation. Furthermore, it could be suggested that the exercise initiative was not taken seriously due to these perceptions. In another example, a survey participant expressed that they felt as though their organisation has had little to do with the exercise initiatives, and if anything, felt their management were avoiding addressing wellbeing concerns to minimise costs. By way of these findings, it could be speculated that when employees perceive employers to implement initiatives with little thought or and with more concern towards the organisation’s reputation, or reducing costs, employees may view this cynically and thus, be less likely to participate. However, as this study did not include reduce costs or reputation in the quantitative scale, whether these factors predicted participation cannot be ascertained by this study. However, it was presented in the findings that the lesser employees perceive their employers intentions to be caring and genuine, the less likely they are to participate, and also, the less significant leadership support for wellbeing is for the likelihood of participation.

5.9. Practical and Theoretical Implications

5.9.1. Theoretical Implications

The findings from this study contribute to academic research investigating participation in exercise initiatives. The aim of this research was to provide insights into how individual perceptions of organisational factors as well as personal barriers collectively influence participation in an exercise initiative. Existing academic literature has primarily focussed on describing individual level barriers to exercise initiative and to the knowledge of the researcher, has not yet investigated how individual employee perceptions of various organisational factors and personal barriers may collectively relate to participation in an exercise initiative. Thus, this study contributes to existing academic literature on employee participation in workplace exercise initiatives. Furthermore, this study offers a unique approach to considering enablers in barriers to participation through its application of J D-R theory.

Existing literature has investigated leadership support for wellbeing in relation to organisational health culture (Lin & Lin, 2014), employee wellbeing (Milner et al., 2013). However, the findings from this research contribute to this existing literature by effectively demonstrating the positive influence of leadership support on employee participation in an exercise initiative. Although it was not hypothesised, a unique finding of this study was the relationship between perceived employer intentions of the exercise initiative and employee participation. This study was unique through its application of the ‘black box’ theory to the context of exercise initiatives and consequently, finding significant results for perceived employer intentions in regards to employee participation in an exercise initiative. This study found a unique contributing factor to employee participation in exercise initiatives and consequently, contributes to existing literature on employee participation in exercise initiatives. Additionally, this research has created an opening for future research to further investigate perceived employer intentions in relation to employee participation in exercise initiatives.

5.9.2. Practical Implications

Employee participation has been recognised as a key issue in the implementation of exercise initiatives. This research contributes practically by providing insights into how

organisational factors can influence participation. These insights can be practically useful for organisations looking to improve the way in which they implement exercise initiatives.

These findings emphasise the importance of leadership support for wellbeing and additionally, the influence of positively perceived employer intentions. Thus, from a managerial perspective, these findings suggest that the leadership should actively plan and advocate for wellbeing and participation in the exercise initiatives, if they wish to improve employee participation in an exercise initiative. Additionally, employers should ensure their intentions are perceived positively. As discussed, wellbeing should be aligned with the organisations strategies and goals (Milner et al., 2013) as to demonstrate dedication to improving employee wellness and implement a higher priority on wellbeing throughout all management levels within an organisation.

5.10. Limitations and Future Research

A key limitation of this research is the sample size. The sample for the survey included 98 participants and although this was sufficient for the number of predictors included in this study, future research should investigate the influence of job resources and demands on exercise participation with a larger sample size in order to achieve more statistically significant results.

A potential limitation is sample selection based on the logic that it is likely that individuals with a particular interest in wellbeing and exercise would be more inclined to participate in the study. This study tried to minimise this limitation through emphasising the inclusion of individuals who do not participate in exercise and as a result, nearly half of survey participants were non-participants of the exercise initiatives. However, non-participation in the exercise initiative does not equal non-interest in exercise, thus, there is still potential for this bias.

As this study used self-reported data, there is the limitation of common method variance (CMV). However, to minimise the possibility of CMV, this study used well-validated scales (other than perceived employer intentions) to ensure the psychometric properties were acceptable (Spector, 1987) and furthermore, conducted factor analysis to ensure the scales used were of factorial independence (Richardson, Simmering, & Sturman, 2009). The model used

in this study was based on JD-R theory, however, cross-sectional design does not permit for the hypothesised relationships to be recognised as causal. To recognise causality between these variables, future research should conduct a longitudinal study.

5.11. Concluding remarks

This study has presented a foundation for future research on the influence of perceived employer intentions on employee participation in an exercise initiative. There is potential for further investigation of linkages described by the ‘black box’ model for improving HR performance outcomes. There are other links in this model that were not included in this study. Therefore, future research should consider other missing links within this model, such as the actual intentions of employers in relation to employee perceptions. Additionally, this research has emphasised the importance of leadership support and thus, organisations wishing to improve exercise participation ought to focus on improving leadership engagement in wellbeing.

6. References

- Abraham, J. M., Feldman, R., Nyman, J. A., & Barleen, N. (2011). What factors influence participation in an exercise-focused, employer-based wellness program? *Inquiry*, 48(3), 221-241.
- Allen, M. (2017). *The Sage Encyclopaedia of Communication Research Methods* (Vols. 1-4). Thousand Oaks, CA: SAGE Publications Ltd.
- Andersen, L. L. (2011). Influence of psychosocial work environment on adherence to workplace exercise. *Journal of Occupational Health and Environmental Medicine*, 53(2), 182-184.
- Andersen, L. L., Fishwick, D., Robinson, E., Wiezer, N. M., Mockallo, Z., & Grosjean, V. (2017). Job satisfaction is more than a fruit basket, health checks and free exercise: Cross-sectional study among 10,000 wage earners. *Scandinavian journal of public health*, 45(5), 476-484.
- Anderson, L. M., Quinn, T. A., Glanz, K., Ramirez, G., Kahwati, L. C., Johnson, D. B., . . . Katz, D. L. (2009). The effectiveness of worksite nutrition and physical activity interventions for controlling employee overweight and obesity a systematic review. *American Journal of Preventive Medicine*, 37(4), 340-357.
- Atlantis, E., Chow, C. M., Kirby, A., & Singh, M. F. (2004). An effective exercise-based intervention for improving mental health and quality of life measures: a randomized controlled trial. *Preventive Medicine*, 39(2), 424-434.
- Baicker, K., Cutler, D., & Song, Z. (2010). Workplace wellness programs can generate savings. *Health Affairs*, 29(2), 304-311.
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309-328.

- Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). Burnout and work engagement: The JD-R approach. *The Annual Review of Organizational Psychology and Organizational Behavior*, 1(1), 389-411.
- Baptiste, N. R. (2008). Tightening the link between employee wellbeing at work and performance. *Management Decision*, 46(2), 284-309.
- Bardus, M., Blake, H., Lloyd, S., & Suggs, L. S. (2014). Reasons for participating and not participating in a e-health workplace physical activity intervention: A qualitative analysis. *International Journal of Workplace Health Management*, 7(4), 229-246.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- Barney, J. B., & Wright, P. M. (1998). On becoming a strategic partner: the role of human resources in gaining competitive advantage. *Human Resource Management*, 37(1), 31-46.
- Baxter, P., & Jack, S. (2008). Qualitative case study methodology: study design and Implementation for novice researchers. *The Qualitative Report*, 13(4), 544-559.
- Beehr, T. A., Walsh, J. T., & Taber, T. D. (1976). Relationship of stress to individually and organizationally valued states: Higher order needs as a moderator. *Journal of Applied Psychology*, 61(7), 41-47.
- Berry, L. L., Mirabito, A. M., & Baun, W. B. (2010). What's the hard return on employee wellness programs? *Harvard Business Review*, 88(12), 104-112.
- Bilby, L. (2015, October 15). 100,000 more obese kiwis in the next 10 years, new figures predict. *New Zealand Herald*. Retrieved from https://www.nzherald.co.nz/lifestyle/news/article.cfm?c_id=6&objectid=11527482

- Biron, C. B., Burke, R. J., & Cooper, C. L. (2014). *Creating healthy workplaces*. Farnham, England: Gower Publishing Ltd.
- Boeije, H. R. (2010). *Analysis in qualitative research*. London, United Kingdom: SAGE Publications Inc.
- Boles, M., Pelletier, B., & Lynch, W. (2004). The relationship between health risks and work productivity. *Journal of Occupational and Environmental Medicine*, 46(7), 737-745.
- Bolino, M. C., & Turnley, W. H. (2005). The personal costs of citizenship behavior: the relationship between individual initiative and role overload, job stress, and work-family conflict. *Journal of Applied Psychology*, 90(4), 740-748.
- Boon, C., & Kalshoven, K. (2014). How high-commitment HRM relates to engagement and commitment: The moderating role of task proficiency. *Human Resource Management*, 53(3), 403-420.
- Boxall, P. (2008). Strategic Human Resource Management. In K. Macky (Eds.), *Managing Human Resources: Contemporary Perspectives in New Zealand* (pp. 26-51). Sydney, NSW: McGraw-Hill Australia Pty Ltd.
- Boxall, P. (2012). High-performance work systems: what, why, how and for whom? *Asia Pacific Journal of Human Resources*, 50(2), 169-186.
- Boxall, P. (2013). Mutuality in the management of human resources: assessing the quality of alignment in employment relationships Mutuality in the management of human resources. *Human resource management journal*, 23(1), 3-17.
- Braun, V., & Clarke, V. (2006) Using thematic analysis in psychology, *Qualitative Research in Psychology*, 3(2), 77-101

Bredahl, T. V. G., Særvoll, C. A., Kirkelund, L., Sjøgaard, G., & Andersen, L. L. (2015).

When intervention meets organisation, a qualitative study of motivation and barriers to physical exercise in the workplace. *The Scientific World Journal*, 2015, 1-12.

Brinkley, A., Freeman, J., McDermott, H., & Munir, F. (2017a). What are the facilitators and obstacles to participation in workplace team sport? A qualitative study. *AIMS Public Health*, 4(1), 94-126.

Brinkley, A., McDermott, H., & Munir, F. (2017b). What benefits does team sport hold for the workplace? A systematic review. *Journal of Sports Sciences*, 35(2), 136-148.

Buckley, J. P., Hedge, A., Yates, T., Copeland, R. J., Loosemore, M., Hamer, M., . . .

Dunstan, D. (2015). The sedentary office: an expert statement on the growing case for change towards better health and productivity. *British Journal of Sports Medicine*, 49, 1357-1362.

Buckworth, J., Lee, R. E., Regan, G., Schneider, L. K., & DiClemente, C. D. (2007).

Decomposing intrinsic and extrinsic motivation for exercise: Application to stages of motivational readiness. *Psychology of Sport and Exercise*, 8(4), 441-461.

Cancelliere, C., Cassidy, J. D., Ammendolia, C., & Côté, P. (2011). Are workplace health promotion programs effective at improving presenteeism in workers? A systematic review and best evidence synthesis of the literature. *BMC Public Health*, 11(395), 1-11.

Carlson, D. S., Perrewé, P. L. (1999). The role of social support in the stressor-strain relationship: An examination of work-family conflict. *Journal of Management*, 25(4), 513-540.

Cawley, J., & Price, J. A. (2013). A case study of a workplace wellness program that offers financial incentives for weight loss. *Journal of Health Economics*, 32(5), 794-803.

- Clark, S. C. (2001). Work cultures and work/family balance. *Journal of Vocational Behavior*, 58(3), 348-365.
- Conn, V. S., Hafdahl, A. R., Cooper, P. S., Brown, L. M., & Lusk, S. L. (2009). Meta-analysis of workplace physical activity interventions. *American Journal of Preventative Medicine*, 37(4), 330-339.
- Cooper, J., & Patterson, D. (2008). Should business invest in the health of its workers? *International Journal of Workplace Health Management*, 1(1), 65-71.
- Coulson, J. C., McKenna, J., & Field, M. (2008). Exercising at work and self-reported work performance. *International Journal of Workplace Health Management*, 1(3), 176-197.
- Corbin, J., & Morse, J. M. (2003). The unstructured interactive interview: Issues of reciprocity and risks when dealing with sensitive topics. *Qualitative Inquiry*, 9(3), 335-354.
- Crespin, D. J., Abraham, J. M., & Rotham, A. J. (2016). The effect of participation in an incentive-based wellness program on self-reported exercise. *Preventive Medicine*, 82, 92-98.
- Creswell, J. W., & Creswell, J. D. (2018). Research design: Qualitative, quantitative, and Mixed methods approaches (Fifth ed.). Thousand Oaks, California: SAGE Publications Inc.
- Currie, D. (2001). Managing employee well-being. Oxford, United Kingdom; Chandos Publishing.
- Dawson, J. F. (2014). Moderation in management research: What, why, when, and how. *Journal of Business and Psychology*, 29(1), 1-19.

- Dalager, T., Justesen, J. B., Murray, M., Boyle, E., & Sjøgaard, G. (2016). Implementing intelligent physical exercise training at the workplace: health effects among office workers – a randomized controlled trial. *European Journal of Applied Physiology*, 116(7), 1433-1442.
- Dalager, T., Justesen, J. B., and Sjøgaard, G. (2017). Intelligent physical exercise training in a workplace setting improves muscle strength and musculoskeletal pain: A randomized controlled trial. *Biomed Research International*, 2017(1), 1-9.
- Danna, K., & Griffin, R. W. (1999). Health and well-being in the workplace: a review and Synthesis of the literature. *Journal of Management*, 25(3), 357-384.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227-268.
- Deci, E. L., & Ryan, R. M. (2008). Facilitating optimal motivation and psychological well-being across life's domains. *Canadian Psychology*, 49(1), 14-23.
- Della, L. J., DeJoy, D. M., Goetzel, R. Z., Ozminkowski, R. J., & Wilson, M. G. (2008). Assessing management support for worksite health promotion: Psychometric analysis of the leading by example (LBE) instrument. *American Journal of Health Promotion*, 22(5), 359-367.
- de Zeeuw, E. L., Tak, E. C., Dusseldorp, E., & Hendriksen, I. J. (2010). Workplace exercise Intervention to prevent depression: A pilot randomized controlled trial. *Mental Health and Physical Activity*, 3(2), 72-77.
- DiCicco-Bloom, B., & Crabtree, B. F. (2006). The qualitative research interview. *Medical Education*, 40(4), 314-321.

- Edmunds, S., Hurst, L., & Harvey, K. (2013). Physical activity barriers in the workplace: an exploration of factors contributing to non-participation in a uk workplace physical activity intervention. *International Journal of Workplace Health Management*, 6(3), 227-240.
- Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P. D., & Rhoades, L. (2001). Reciprocation of perceived organizational support. *Journal of Applied Psychology*, 86(1), 42-51.
- Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: opportunities and challenges. *The Academy of Management Journal*, 50(1), 25-32.
- Emerson, N. D., Merrill, D. A., Shedd, K., Bilder, R. M., & Siddarth, P. (2017). Effects of an employee exercise programme on mental health. *Occupational Medicine*, 67(2), 128-134.
- Field, A. (2013). *Discovering Statistics Using IBM SPSS Statistics* (4th ed.). Thousand Oaks, California: SAGE.
- Fisher, C., Harris, L., Kirk, S., Leopold, J., & Leverment, Y. (2004). The dynamics of modernisation and job satisfaction in the British National Health Service. *Review of Public Personnel Administration*, 24(4), 304-318.
- Fonarow, G. C., Calitz, C., Arena, R., Baase, C., Isaac, F. W., Lloyd-Jones, D... Antman, E. M. (2015). Workplace wellness recognition for optimizing workplace health a presidential advisory from the American Heart Association. *Circulation*, 131(20), 480-497.
- Gill, C. (1999). *Use of hard and soft models of HRM to illustrate the gap between rhetoric And reality in workforce management* (RMIT Working Paper No. WP 99/13). Retrieved from the RMIT Business website: <http://mams.rmit.edu.au/d4lhtsmk45c.pdf>

- Gould-Williams, J. S. (1998). The impact of HRM practices on organisational commitment. In A. D. Neely and D. B. Waggoner (Eds.), *Performance Measurement, Theory and Practice* (pp. 404-411), Cambridge, UK: Centre for Business Performance, Cambridge University.
- Glasgow, R. E., McCaul, K. D., & Fisher, K. J. (1993). Participation in worksite health promotion: a critique of the literature and recommendations for future practice. *Health Education Quarterly*, 20(3), 391-408.
- Griffiths, A. (1996). The Benefits of Employee Exercise Programmes: A review. *Work & Stress*, 10(1), 5-23.
- Guest, D. E. (2017). Human resource management and employee well-being: towards a new analytic framework. *Human Resource Management Journal*, 27(1), 22-38.
- Hafner, M., Van Stolk, C., Saunders, C. L., Krapels, J., & Baruch, B. (2015). *Health, wellbeing and productivity in the workplace: A Britain's Healthiest Company summary report*. Cambridge, United Kingdom: Rand Corporation. Retrieved from
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (7th ed.). Upper Saddle River, NJ: Pearson Education.
- Haynes, P. J., & Helms, M. M. (2001). Increasing Participation in Corporate Wellness Programs. *Services Marketing Quarterly*, 23(2), 49-59.
- Hunter, J. (2016). *The effect of different types of exercise supervision on adherence, health and fitness in the workplace*. (Doctoral Thesis, RMIT University, Melbourne, Australia). Retrieved from <https://researchbank.rmit.edu.au/view/rmit:161962/Hunter.pdf>

- Hunter, J. R., Gordon, B. A., Lythgo, N., Bird, S. R., & Benson, A. C. (2018). Exercise at an onsite facility with or without direct exercise supervision improves health-related physical fitness and exercise participation: An 8-week randomised controlled trial with 15-month follow-up. *Health Promotion Journal of Australia*, 2018(29), 84-92.
- Ivankova, N. V., Creswell, J. W., & Stick, S. L. (2006). Using mixed-methods sequential explanatory design: From theory to practice. *Field Methods*, 18(1), 3-20.
- Jackson, S. E., Schuler, R. S., & Jiang, K. (2014). An aspirational framework for strategic human resource management. *Academy of Management*, 8(1), 1-56.
- Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 1(2), 112-133.
- Lee, R. T., & Ashforth, B. E. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of applied Psychology*, 81(2), 123.
- Kahn, E. B., Ramsey, L. T., Brownson, R. C., Howze, E. H., Powell, K. E., & Corso, P. (2002). The effectiveness of interventions to increase physical activity. A systematic review. *American Journal of Preventative Medicine*, 22(4S), 73-107.
- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39(1), 31-36.
- Karanika-Murray, M., & Biron, C. (2015). Why do some interventions derail? Deconstructing the elements of organizational interventions for stress and well-being. In M. Karanika-Murray, & C. Biron, *Derailed Organizational Interventions for Stress and Well-Being: Confessions of failure and Solutions for Success*. (pp. 1-15). Dordrecht, Netherlands; Springer.
- Kerr, J. H., & Vos, M. C. (1993). Employee fitness programmes, absenteeism and general well-being. *Work & Stress*, 7(2), 179-190.

- Knox, E. C. L., Musson, H., & Adams, E. J. (2017). Workplace policies and practices promoting physical activity across England: What is commonly used and what works? *International Journal of Workplace Health Management*, 10(5), 391-403.
- Lin, Y., & Lin, Y. (2014). A multilevel model of organizational health culture and the effectiveness of health promotion. *American Journal of Health Promotion*, 29(1), 53-63.
- Lovato, C. Y., & Green, L. W. (1990). Maintaining employee participation in workplace health promotion programs. *Health Education Quarterly*, 17(1), 73-88.
- Luthans, F., Luthans, K. W., & Luthans, B. C. (2004). Positive psychological capital: Beyond human and social capital. *Business Horizons*, 47(1), 45-50.
- Macniven, R., Engelen, L., Kacen, M. J., & Bauman, A. (2015). Does a corporate worksite physical activity program reach those who are inactive? Findings from an evaluation of the global corporate challenge. *Health Promotion Journal of Australia*, 26, 142-145.
- Markland, D. (1999). Self-determination moderates the effects of perceived competence on intrinsic motivation in an exercise setting. *Journal of Sport and Exercise Psychology*, 21(4), 351-361.
- McAuley, E., Wraith, S., & Duncan, T. E. (1991). Self-efficacy, perceptions of success, and intrinsic motivation for exercise. *Journal of Applied Social Psychology*, 21(2), 139-155.
- McGillivray, D. (2002). Health promotion in the workplace: A missed opportunity? *Health Education*, 102(2), 60-67.
- McGillivray, D. (2005). Fitter, happier, more productive: governing working bodies through wellness. *Culture and Organization*, 11(2), 125-138.

- McLellan, R. K., MacKenzie, T. A., Tilton, P. A., Dietrich, A. J., Comi, R. J., & Feng, Y. Y. (2009). Impact of workplace sociocultural attributes on participation in health assessments. *Journal of Occupational and Environmental Medicine*, 51(7), 797-803.
- Miller, J. (2016). The well-being and productivity link: a significant opportunity for research-into-practice. *Journal of Organizational Effectiveness: People and Performance*, 3(1), 289-311.
- Milner, K., Greyling, M., Goetzel, R., Da Silva, R., Kolbe-Alexander, T., Patel, D... Beckowski, M. (2015). The relationship between leadership support, workplace health promotion and employee wellbeing in South Africa. *Health Promotion International*, 30(3), 514-522.
- Mullan, E., Markland, D., & Ingledew, D. K. (1997). A graded conceptualisation of self-determination in the regulation of exercise behaviour: development of a measure using confirmatory factor analytic procedures. *Personal and Individual Differences*, 23(5), 745-752.
- Näswall, K., Låstad, L., Vetting, T.-S., Larsson, R., Richter, A., & Sverke, M. (2010). *Job insecurity from a gender perspective: Data collection and psychometric properties*. Stockholm, Sweden: Department of Psychology, Stockholm University. Retrieved from <https://w3.psychology.su.se/psychlib/rapporter/report1.pdf>
- Neyens, D. M., & Childers, A. K. (2017). Determining barriers and facilitators associated with willingness to use a personal health information management system to support worksite wellness programs. *American Journal of Health Promotion*, 31(4), 310-317.
- Owen, N., Healy, G. N., Matthews, C. E., & Dunstan, D. W. (2010). Too much sitting: the population-health science of sedentary behavior. *Exercise Sports Science Review*, 38(3), 105-113.

- Paguntalan, J. C., & Gregoski, M. (2016). Physical activity barriers and motivators among high-risk employees. *Work*, 55(3), 515-524.
- Parks, K. M., & Steelman, L. A. (2008). Organizational wellness programs: a meta-analysis. *Journal of Occupational Health Psychology*, 13(1), 58-68.
- Pedersen, M. M., Zebis, M. K., Langberg, H., Poulsen, O. M., Mortensen, O. S., Jensen, J. N., . . . Andersen, L. L. (2013). Influence of self-efficacy on compliance to workplace exercise. *International Journal of Behaviour Medicine*, 20(3), 365-370.
- Person, A. L., Colby, S. E., Bulova, J. A., & Eubanks, J. W. (2010). Barriers to participation in a worksite wellness program. *Nutrition Research and Practice*, 4(2), 149-154.
- Ployhart, R. E., Nyberg, A. J., Reilly, G., & Maltarich, M. A. (2014). Human capital is dead; long live human capital resources! *Journal of Management*, 40(2), 371-398.
- Pronk, N. P., & Kottke, T. E. (2009). Physical activity promotion as a strategic corporate priority to improve worker health and business performance. *Preventative Medicine*, 49, 316-321.
- Proper, K. I., Koning, M., van der Beek, A. J., Hildebrandt, V. H., Bosscher, R. J., & van Mechelen, W. (2003). The effectiveness of worksite physical activity programs on physical activity, physical fitness, and health. *Clinical Journal of Sport Medicine*, 13(2), 106-113.
- Purcell, J., & Hutchinson, S. (2007). Frontline managers as agents in the HRM-performance causal chain: theory, analysis and evidence. *Human Resource Management Journal*, 17(1), 3-20.


- Rasotto, C., Bergamin, M., Simonetti, A., Maso, S., Bartolucci, G. B., Ermolao, A., & Zaccaria, M. (2015). Tailored exercise program reduces symptoms of upper limb work-related musculoskeletal disorders in a group of metalworkers: a randomized controlled trial. *Manual Therapy*, 20(1), 56-62.
- Richman, A. L., Civian, J. T., Shannon, L. L., Hill, E. J., & Brennan, R. T. (2008). The relationship of perceived flexibility, supportive work–life policies, and use of formal flexible arrangements and occasional flexibility to employee engagement and expected retention. *Community, Work and Family*, 11(2) 183-197.
- Robroek, S. J., van Lenthe, F. J., van Empelen, P., & Burdorf, A. (2009). Determinants of participation in worksite health promotion programmes: a systematic review. *International Journal of Behavioral Nutrition and Physical Activity*, 6(26).
- Rudman, W. J., & Steinhardt, M. (1988). Fitness in the workplace: The effects of a corporate health and fitness program on work culture. *Health Values*, 12, 4–17.
- Russell, N. (2009). *Workplace Wellness: A Literature Review for NZWell@Work*. Wellington, New Zealand: Ministry of Health. Retrieved from <http://www.nzwellatwork.co.nz/pdf/wrkplc-wellness-lit-rev-feb09.pdf>
- Ryan, R. M., Frederick, C. M., Lepes, D., Rubio, N., & Sheldon, K. M. (1997). Intrinsic motivation and exercise adherence. *International Journal of Sport Psychology*, 28(4), 335-354.
- Ryde, G. C., Gilson, N. D., Burton, N. W., & Brown, W. J. (2013). Recruitment rates in workplace physical activity interventions: Characteristics for success. *American Journal of Health Promotion*, 27(5), 101-112.

- Sallis, J. F., Hovell, M. F., Hofstetter, C. R., Faucher, P., Elder, J. P., Blanchard, J., Capersen, C. J., Powell, K. E., & Christenson, G. M. (1989). A multivariate study of determinants of vigorous exercise in a community sample. *Preventive Medicine*, 18(1), 20-34.
- Schaufeli, W. B., & Taris, T. W. (2014). A critical review of the job demands-resources model: Implications for improving work and health. In G. F. Bauer & O. Hämmig (Eds.), *Bridging occupational, organizational and public health* (pp. 43–68). Amsterdam: Springer.
- Schaufeli, W. (2017). Applying the job demands-resources model: A 'how to' guide to measuring and tackling work engagement and burnout. *Organizational Dynamics*, 46(2), 120-132.
- Sears, L. E., Shi, Y., Coberley, C. R., & Pope, J. E. (2013). Overall well-being as a predictor of health care, productivity, and retention outcomes in a large employer. *Population Health Management*, 16(6), 397-405.
- Solomon, C. M. (1996). Flexibility comes out of flux. *Personnel Journal*, 75(6), 34–43
- Sjögren, T., Nissinen, K. J., Järvenpää, S. K., Ojanen, M. T., Vanharanta, H., & Mäkiä, E. A. (2006). Effects of a workplace physical exercise intervention on the intensity of low back symptoms in office workers: a cluster randomized controlled cross-over design. *Journal of Back and Musculoskeletal Rehabilitation*, 19, 13-24.
- Stone, R. J. (2017). Human resource management (9th Ed.). Milton, Australia: Wiley.
- Southern Cross Health Society & BusinessNZ. (2017). Wellness in the workplace 2017: survey report. Wellington, New Zealand: Author. Retrieved from https://www.businessnz.org.nz/_data/assets/pdf_file/0009/128547/Wellness-in-the-Workplace-Survey-2017.pdf

- Thorp, A. A., Healy, G. N., Winkler, E., Clark, B. K., Gardiner, P. A., Owen, N., & Dunstan, D. W. (2012). Prolonged sedentary time and physical activity in workplace and non-work contexts: a cross-sectional study of office, customer service and call centre employees. *International Journal of Behavioural Nutrition and Physical Activity*, 9(128), 1-12.
- Truss, C., Gratton, L., Hope-Hailey, V., & McGovern, P. (1997). Soft and hard models of human resource management: a reappraisal. *Journal of Management Studies*, 34(1), 53-73.
- Wiggins, A. (2018, July 5). Two million obese New Zealanders by 2038, study finds. *New Zealand Herald*. Retrieved from https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12083109
- Wilson, R. and Abbott, J. H. (2018), Age, period and cohort effects on body mass index in New Zealand, 1997–2038. *Australian and New Zealand Journal of Public Health*, (2018), 1-7.
- Wright, P. M., & McMahan, G. C. (2011). Exploring human capital: Putting human back into strategic human resource management. *Human Resource Management Journal*, 21(2), 93-104.
- Zavanela, P. M., Crewther, B. T., Lodo, L., Florindo, A. A., Miyabara, E. H., & Aoki, M. S. (2012). Health and Fitness Benefits of a Resistance Training Intervention Performed in the Workplace. *Journal of Strength and Conditioning Research*, 26(3), 811-817.
- Zula, K. (2014). Workplace wellness programs: a comparison between best practice guidelines and implementation. *The Journal of Applied Business Research*, 30(3), 783-792.

7. Appendices

7.1. Final Survey



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Kia ora koutou katoa

I am a Masters of Commerce student at the University of Canterbury and I am conducting a study on how organisational factors may influence the participation in, and the outcomes of, a workplace exercise initiative. Workplace wellness has become a popular topic in academic research over the years and research has shown the many potential positive outcomes workplace wellness can have for both employees and employers. However, organisations that implement wellness and exercise interventions are not always successful at engaging all their employees. What I am interested in is finding out how organisational aspects might influence the participation in and outcomes of, an exercise initiative.

If your organisation has provided exercise options in your workplace, you are in a great position to help my research by participating in this survey. Whether you actually participated in the exercise initiatives in your workplace or not, your participation in this survey will be beneficial to the study and is greatly appreciated.

The information you provide through this survey will be anonymous and only the researcher and supervisors will see your answers. The study has been approved by the University of Canterbury Human Ethics Committee. Please answer the questions as best as you can by selecting one of the answers or by typing in the spaces provided.

If you would like to be in the draw for one of three \$50 Westfield vouchers, at the end of this survey, there will be a link to a separate survey to fill in your contact details for the prize draw!

Thank you very much for your assistance with my research project.

Ngā mihi maioha
Anna Little
anna.little@pg.canterbury.ac.nz

>>

Research Study: Organisational influences on the effectiveness of a workplace exercise initiative

Please read the following to indicate your understanding of the study and your agreement to participate.

- I have been given a full explanation of this project in the email.
- I understand I am required to answer the questionnaire as honestly as I can.
- I understand that participation is voluntary and I may withdraw at any time without penalty. Withdrawal of participation will also include the withdrawal of any information I have provided should this remain practically achievable.
- I understand that any information or opinions I provide will be kept confidential to the researcher and research supervisors and that any published or reported results will not identify the participants.
- I understand that I can contact the researcher Anna Little, anna.little@pg.canterbury.ac.nz or supervisor Russell Wordsworth, russell.wordsworth@canterbury.ac.nz for further information.
- If I have any complaints, I can contact the Chair of the University of Canterbury Human Ethics Committee, Private Bag 4800, Christchurch, hum-ethics@canterbury.ac.nz

By clicking the arrows below, I agree to participate in this research project.


>>

Has your organisation provided a workplace exercise initiative of some kind in the past 6 months? e.g. exercise bootcamps, group exercise classes, gym memberships, team sport, walking/running groups, events such as marathons etc., competitions or other initiatives.

- ☐ Yes
☐ No

>>

Participation



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Do you participate in the exercise initiatives provided to you by your workplace?
You can select multiple options.

☐ Yes - I regularly participate in exercise initiatives


☐ I have occasionally taken part in the exercise initiatives

☐ No (your participation in this survey is still very valuable)

☐ If you have any comments on the above question, feel free to type them here:

>>

Participation Frequency



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Background

This section is to measure how often you participated in the exercise initiatives.

How frequently do/did you participate in the exercise initiatives?

☐ Less than once a month

☐ Monthly

☐ Fortnightly

☐ Weekly

☐ Twice a week

☐ More than twice a week

Comments:

>>

Co-worker Support



This section aims to learn more about your workplace.

The following questions are about co-worker support and how well you get along with your colleagues.

Please indicate the degree to which you agree or disagree with the following statements.

	Strongly Disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree	Not Applicable
I usually receive help from my co-workers when something needs to be done quickly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I always receive the help I need from my co-workers when difficulties in my work arise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I encounter problems at work, there is always a co-worker to turn to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

>>

Leadership Support for Wellbeing



The following questions are to learn more about the extent to which your organisation is perceived to be supportive of employees and wellbeing.

Please indicate the degree to which you agree or disagree with the following statements.

	Strongly Disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree	Not Applicable
My organisation's goals and plans advocate for the improvement of employee health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The health promotions at my organisation are aligned with our organisational goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The objectives for health improvement at my organisation are set annually	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our work teams provide support for participation in the exercise initiative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly Disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree	Not Applicable
My organisation offers incentives for employees to stay healthy, reduce their high risk behaviours, and/or practice healthy lifestyles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our leaders view the level of employee health and wellbeing as one important indicator of the site's business success	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My organisation's leadership is committed to health promotion as an important investment in human capital	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Temporal Flexibility and Role Overload



This section is to learn about the level of work demands you might experience.

Please indicate the degree to which you agree or disagree with the following statements.

	Strongly Disagree	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree	Strongly agree	Not Applicable
I am able to arrive and depart from work when I want	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am free to work the hours that are best for my schedule	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is no flexibility in my schedule	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate the degree to which you agree or disagree with the following statements.

	Strongly Disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree	Not Applicable
I am given enough time to do what is expected of me in my job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often work under a heavy time pressure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often have too much to do in my job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

>>

Perceived Employer Intentions



The following questions are designed to understand your views of why the exercise initiatives have been introduced in your organisation. Please indicate the extent to which you agree or disagree with the following statements. There are no right or wrong answers, we are simply interested in your opinions.

The purpose of the exercise initiative was:

	Strongly Disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree	Not Applicable
to make employees happy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
to demonstrate to employees that my organisation cares about their wellbeing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
to make the my organisation look good in terms of being a responsible and caring employer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
to address poor health among employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
to improve workplace dynamics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
to reduce costs e.g. from absent employees, healthcare costs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>


In addition to the above, what do you think were the intentions for your organisation to implement these exercise initiatives?



If there were any aspects of your organisation that were not addressed in the above questions that influenced your participation/non-participation, feel free to describe them below.

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Motivations/Enablers to Participation



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Motivation to participate in the exercise initiative


The aim of this section is to explore the reasons for your participation in the exercise initiative and to understand what factors may have or may not have been motivating to you.

What were your key motivations to participating in the exercise initiative provided to you by your workplace?

What were any factors that really helped you to participate more?

>>

Intrinsic Motivation



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The following questions are about your motivation to exercise in general.
Please indicate the degree to which you agree or disagree with the following statements.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree	Not Applicable
I exercise because it's fun	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy my exercise sessions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get pleasure and satisfaction from participating in exercise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

>>

Barriers to Physical Exercise



Thank you for your participation so far, you are nearly done!

The following section aims to identify factors that may have made participating in the exercise initiative difficult for you.

Please indicate the extent to which any of the following situations are a barrier to your participation in exercise.

	1 Not a barrier	2	3	4	5	6	7 Severe Barrier
Lack of interest in exercise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of enjoyment from exercise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of self-discipline	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of company (friends/peers)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of knowledge on how to exercise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discouragement from others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of equipment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-conscious about my looks when I exercise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fear of injury	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of facilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of good weather	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of good health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intimidated by the exercise options provided	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other: Please specify <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If there were any other barriers you experienced, please feel free to describe them below

>>

Demographics



Demographics

The following section is simply so a statement can be made describing the participants in my study. When there is fewer than 10 responses that belong to a certain group, it will not be reported to ensure that is not possible to identify any participants in this survey.

Gender

- ☐ Male
- ☐ Female
- ☐ Other

Age in years

Approximately how long have you been an employee in your organisation?

Do you have any supervisory roles?

- ☐ Yes
- ☐ No
- ☐ Other: Please specify

>>

Interviewee Recruitment



Thank you for your time.
In addition to completing this survey, the researcher would like to carry out a follow up interview to learn more about your perceptions of the exercise initiative. The interview would take around 30 minutes and would cover topics similar to those in the survey. Your participation in a follow up interview, either in person or by telephone, would be greatly appreciated and very beneficial to this study.

I am willing to participate in an interview

- ☐ Yes
☐ No

>>



If yes, the researcher will contact you in the next week to arrange a suitable time and place to conduct an interview with you. Please leave your email address or contact number below.

Email address/phone number:

>>

7.2. Interview Information and Consent Forms



Department: Management, Marketing and Entrepreneurship
Telephone: +64 273558115
Email: anna.little@pg.canterbury.ac.nz
Date: 26/03/2018

Organisational influences on the effectiveness of a workplace wellness exercise initiative Information Sheet for Interview Participants

My name is Anna Little, I am a student at University of Canterbury studying towards a Masters of Commerce in Management. Workplace wellness has become an increasingly popular topic in academic research over the years and research has shown the many potential positive outcomes workplace wellness can have for both employees and employers. However, organisations that implement wellness and exercise interventions are not always successful at engaging all their employees. This research aims to improve understanding of how organisational aspects may influence the participation in, and outcomes of a workplace exercise initiative.

If you choose to take part in this study, your involvement in this project will be to partake in an interview for about 45 minutes and answer questions as best as you can.

Participation is voluntary and you have the right to withdraw at any stage without penalty. You may ask for your raw data to be returned to you or destroyed at any point. If you withdraw, I will remove information relating to you. However, once analysis of raw data starts on April 20th, it will become increasingly difficult to remove the influence of your data on the results. If you would like the opportunity to review the transcript of the interview, please indicate to the researcher on the consent form below. If you do, after transcription you will be provided with one week to review the transcript.

I would like to audio record this interview to help with my data analysis and to ensure it is accurate. The only people who will have access to your data will be the researcher, supervisors, and if needed, there is the potential for a transcriber to assist the researcher, who will be required to sign a confidentiality agreement. The results of the project may be published, but you may be assured of the complete confidentiality of data gathered in this investigation. To ensure anonymity and confidentiality, all data will remain confidential and will be stored in a password-encrypted file and any documents will be locked in a secure office at the University of Canterbury. At the completion of the thesis, it is required that the data is securely stored in the research supervisor's office for a period of five years and then destroyed. The thesis document will not identify any respondents or organisations and will ensure anonymity. A thesis is a public document and will be available through the UC Library.

Please indicate to the researcher on the consent form if you would like to receive a copy of the summary of results of the project.

The project is being carried out as a requirement for a Masters of Commerce by Anna Little under the supervision of Russell Wordsworth, who can be contacted at russell.wordsworth@canterbury.ac.nz and secondary supervision of Sanna Malinen, who can be contacted at sanna.malinen@canterbury.ac.nz. They will be pleased to discuss any concerns you may have about participation in the project.

This project has been reviewed and approved by the University of Canterbury Human Ethics Committee, and participants should address any complaints to The Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

If you agree to participate in the study, you are asked to complete the consent form and return to Anna Little before the interview via. Email or in person at the interview.

Anna Little

Consent Form



Department Management, Marketing and Entrepreneurship
Telephone: +64 3 [Your phone number]
Email: anna.little@pg.canterbury.ac.nz

Organisational influences on the effectiveness of a workplace wellness exercise interventions **Consent Form for Interview Participants**

Include a statement regarding each of the following:

- ☐ I have been given a full explanation of this project and have had the opportunity to ask questions.
- ☐ I understand what is required of me if I agree to take part in the research.
- ☐ I understand that participation is voluntary and I may withdraw at any time without penalty. Withdrawal of participation will also include the withdrawal of any information I have provided should this remain practically achievable.
- ☐ I understand that any information or opinions I provide will be kept confidential to the researcher, researcher supervisors and transcriber and that any published or reported results will not identify the participants or the organisation. I understand that a thesis is a public document and will be available through the UC Library.
- ☐ I understand that all data collected for the study will be kept in locked and secure facilities and/or in password protected electronic form and will be destroyed after five years.
- ☐ I understand the risks associated with taking part and how they will be managed.
- ☐ I understand that I can contact the researcher Anna Little anna.little@pg.canterbury.ac.nz or supervisor Russell Wordsworth russell.wordsworth@canterbury.ac.nz or secondary supervisor Sanna Malinen sanna.malinen@canterbury.ac.nz for further information. If I have any complaints, I can contact the Chair of the University of Canterbury Human Ethics Committee, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz)
- ☐ I am happy for this interview to be audio recorded and transcribed.
- ☐ I would like to review the transcript of the interview.
- ☐ I would like a summary of the results of the project.
- ☐ By signing below, I agree to participate in this research project.

Name: _____ Signed: _____ Date: _____

Email address (for report of findings, if applicable): _____

Please return to Anna Little via. Email or return at the interview.

Anna Little

7.3. Semi-structured Interview Questions

Some example interview questions

- Do you think ‘organisation’ has been successful with their exercise initiatives? Has it been successful in terms of participation, improved health and fitness or other job related outcomes? Why/why not? – What has made it so unsuccessful/successful?
- Do you work in a team of people? – are they supportive and encouraging of wellbeing/exercise? What sort of things do you do together?
- (If participated) – do you have certain people or work-friends you go along with?
- Do other colleagues ever prevent you from going to such initiatives? If so, in what ways?
- What factors in the organisation have been facilitating and helpful to your participation? (if they participated)
- What factors in the organisation has prevented participation or made participation more difficult?
- Does your work at all prevent you from participating? (stress, workload, flexibility, hours)
- Have there ever been added incentives, such as prizes? Would incentives such as prizes help you participate or others to participate?
- What do you believe the purpose of the workplace exercise initiative is?
- What was ‘organisations’ intentions? Has this affected your participation in anyway?
- Are the employers very supportive of the initiative? Are managers supportive of the initiative? Has this affected your participation in anyway?

7.4. Human Ethics Committee Approval



HUMAN ETHICS COMMITTEE

Secretary, Rebecca Robinson
Telephone: +64 03 369 4588, Extn 94588
Email: human-ethics@canterbury.ac.nz

Ref: HEC 2017/79/LR

17 October 2017

Anna Little
Management, Marketing and Entrepreneurship
UNIVERSITY OF CANTERBURY

Dear Anna

Thank you for submitting your low risk application to the Human Ethics Committee for the research proposal titled "Organisational Influences on the Effectiveness of a Workplace Exercise Initiative".

I am pleased to advise that this application has been reviewed and approved.

Please note that this approval is subject to the incorporation of the amendments you have provided in your email of 6th October 2017.

With best wishes for your project.

Yours sincerely

R. Robinson
pp.

Associate Professor Jane Maidment
Chair, Human Ethics Committee